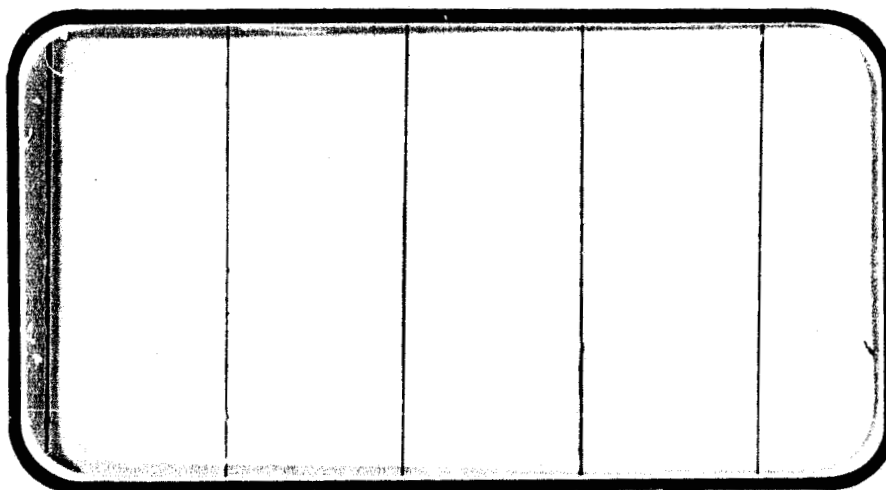


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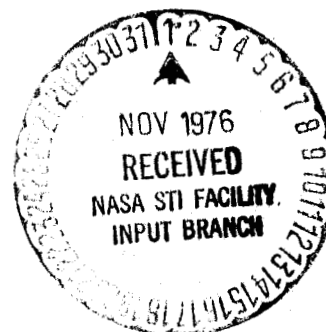
(NASA-CR-147635) INVESTIGATIONS OF THE
0.020-SCALE 88-OTS INTEGRATED SPACE SHUTTLE
VEHICLE JETPLUME MODEL IN THE NASA/AMES
RESEARCH CENTER 11 BY 11-FOOT UNITARY PLAN
WIND TUNNEL (IA80), VOLUME 4 (Chrysler

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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



**CHRYSLER
CORPORATION**

September, 1976

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NASA CR-147,635

VOLUME 4 OF 4

INVESTIGATIONS OF THE 0.020-SCALE 88-OTS
INTEGRATED SPACE SHUTTLE VEHICLE JET-PLUME MODEL
IN THE NASA/AMES RESEARCH CENTER
11 x 11-FOOT UNITARY PLAN WIND TUNNEL (IA80)

by

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Prepared under NASA Contract Number NAS9-13247

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New Orleans, La. 70189

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Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number. ARC 11-023
NASA Series Number: IA80
Model Number: 88-OTS
Test Dates: 4 through 8 November 1974
Occupancy Hours: 132

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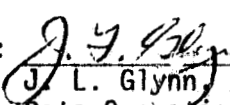
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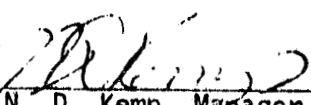
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INVESTIGATIONS OF THE 0.020-SCALE 88-OTS
INTEGRATED SPACE SHUTTLE VEHICLE JET-PLUME MODEL
IN THE NASA/AMES RESEARCH CENTER
11 x 11-FOOT UNITARY PLAN WIND TUNNEL (IA80)

By

M. E. Nichols, Rockwell International Space Division

ABSTRACT

This report documents the results of jet-plume effects wind tunnel test IA80 of the 0.020-scale 88-OTS launch-configuration Space Shuttle Vehicle model in 11 x 11-foot leg of the NASA/Ames Research Center Unitary Plan Wind Tunnel. This test involved cold-gas Main Propulsion System and Solid Rocket - Motor plume simulations at Mach numbers from 0.6 to 1.4. IA80 was a continuation of a series of planned tests of plume effects, including IA19 and IA72. The test period was 4 through 8 November 1974, for 377 recorded runs.

The test-program objective was to determine integrated vehicle surface-pressure distributions, elevon and rudder hinge moments, and wing and vertical-tail root bending and torsional moments due to MPS and SRB plume interactions. Nozzle power conditions were controlled per pretest nozzle calibrations carried out by Rockwell International.

Model angle-of-attack was varied from -4° to $+4^{\circ}$; model angle-of-sideslip was varied from -4° to $+4^{\circ}$. Reynolds number was varied for certain test conditions and configurations, with the nominal freestream total pressure being 14.69 psia.

ABSTRACT (Concluded)

This report consists of 4 volumes of force and pressure data. They are arranged in the following manner:

VOLUME NUMBER	CONTENTS	
1	IA80 Plotted Force and Pressure Data	
2	IA80 Tabulated Force Data	
	IA80 Tabulated Pressure Data in Force Format	
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	(b) orbiter fuselage	pages 222-954
3	IA80 Tabulated Pressure Data	
	(a) orbiter fuselage	pages 1-248
	(b) orbiter bodyflap upper surface	pages 249-496
	(c) orbiter bodyflap lower surface	pages 497-744
4	IA80 Tabulated Pressure Data	
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135	PLUME EFFECTS ON SRB BASE PRESSURE COEFFICIENTS, MACH = 0.6	ALPHA, BETA, XB/LB	U	781-786
136	PLUME EFFECTS ON SRB BASE PRESSURE COEFFICIENTS, MACH = 0.9	ALPHA, BETA, XB/LB	U	787-792
137	PLUME EFFECTS ON SRB BASE PRESSURE COEFFICIENTS, MACH = 1.1	ALPHA, BETA, XB/LB	U	793-798

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FIGURE NUMBER	TITLE	CONDITIONS VARYING	PLOTTED COEFFICIENTS SCHEDULE	PAGE
138	PLUME EFFECTS ON SRB BASE PRESSURE COEFFICIENTS, MACH = 1.25	ALPHA, BETA, XB/LB	U	799-804
139	PLUME EFFECTS ON SRB BASE PRESSURE COEFFICIENTS, MACH = 1.4	ALPHA, BETA, XB/LB	U	805-810

PLOTTED COEFFICIENTS SCHEDULE:

- (A) CBMW, CTMW, CNW versus ALPHA
- (B) CHEI, CHEO versus ALPHA
- (C) CBMV, CTMV, CYV versus BETA
- (D) CHR versus BETA
- (E) CBMW, CTMW, CNW versus BETA
- (F) CHEI, CHEO versus BETA
- (G) CBMW, CTMW, CNW versus MACH NUMBER
- (H) DCBMW, DCTMW, DCNW versus MACH NUMBER
- (I) DCBMWE, DCTMWE, DCNWE versus MACH NUMBER
- (J) CHEI, CHEO versus MACH NUMBER
- (K) DCHEI, DCHEO versus MACH NUMBER
- (L) DCHEIE, DCHEOE versus MACH NUMBER

INDEX OF DATA FIGURES (Concluded)

- (M) DCHR versus MACH NUMBER
- (N) DCMBV, DCTMV, DCYV versus MACH NUMBER
- (O) DXWCP, DYWCP versus MACH NUMBER
- (P) DXVCP, DZVCP versus MACH NUMBER
- (Q) CP versus MACH NUMBER
- (R) CP#AV versus MACH NUMBER
- (S) DCP#A versus MACH NUMBER
- (T) CP versus R/ROD
- (U) CP versus PHI

NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
b	BREF	span of wing, in
b_V		span of vertical tail, in
BM_V		vertical tail-root bending moment (about vertical tail reference center), in-lb
BM_{V_0}		vertical tail-root bending moment at outboard gauge, in-lb
BM_{V_I}		vertical tail-root bending moment at inboard gauge, in-lb
BM_W		wing-root bending moment (about wing reference center), in-lb
BM_{W_I}		wing-root bending moment at inboard gauge, in-lb
BM_{W_0}		wing-root bending moment at outboard gauge, in-lb
\bar{c}	LREF	MAC of wing, in
C_{B_V}	CBMV	vertical tail-root bending-moment coefficient
C_{B_W}	CBMW	wing-root bending-moment coefficient
\bar{c}_E		MAC of total elevon panel, in
$C_{H_{E_I}}$	CHEI	hinge-moment coefficient for inboard elevon
$C_{H_{E_0}}$	CHEO	hinge-moment coefficient for outboard elevon
$C_{H_{E_T}}$	CHET	total elevon hinge-moment coefficient

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
C_{H_R}	CHR	hinge-moment coefficient for rudder
C_{N_W}	CNW	wing normal-force coefficient
C_{P_i}	CPi	pressure coefficient for model surface tap i
CPR_j		chamber-pressure ratio for nozzle j
\bar{c}_R		MAC of rudder panel, in
C_{T_V}	CTMV	vertical tail-root twisting-moment coefficient
C_{T_W}	CTMW	wing-root torsion-moment coefficient
\bar{c}_V		MAC of vertical tail, in
C_{Y_V}	CVV	vertical-tail side-force coefficient
EPR_j		exit-pressure ratio for nozzle j
ET		External Tank
HM_{E_I}		hinge moment of inboard elevon, in-lb
HM_{E_O}		hinge moment of outboard elevon, in-lb
HM_R		hinge moment of rudder, in-lb
M	MACH	freestream Mach number
MPS		Main Propulsion System
N		nominal

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
OTS		Orbiter + Tank + SRB
P_{c_j}		chamber pressure (absolute) of nozzle j
P_{cSRM}		SRM supply total pressure, psia (as set)
P_{cMPS}		MPS supply total pressure, psia (as set)
P_{e_j}		exit pressure (absolute) of nozzle j
P_i		pressure (absolute) at model surface tap i
P_T		freestream total pressure, psia
P_∞		freestream static pressure, psia
q	Q(PSF)	freestream dynamic pressure, psf
Re/ft	RN/L	freestream unit Reynolds number, ft^{-1}
S	SREF	reference wing area, ft^2
SRB		Solid Rocket Booster
SRM		Solid Rocket Motor
SSME		Space Shuttle Main Engine
S_E		reference elevon area, ft^2
S_R		reference rudder area, ft^2
S_V		reference vertical tail area, ft^2
TM_V		vertical tail-root torsional moment (about vertical tail reference center), in-lb
TM_{V_G}		vertical tail-root torsional moment at gauge, in-lb

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
TM_W		wing-root torsional moment (about wing reference center), in-lb
TM_{WG}		wing-root torsional moment at gauge, in-lb
$T_{T_{MPS}}$		MPS supply total temperature, °R
$T_{T_{SRM}}$		SRM supply total temperature, °R
T_T		freestream total temperature, °R
T_∞		freestream static temperature, °R
X_{CP_V}	XVCP	vertical tail center-of-pressure, longitudinal location, in
X_{CP_W}	XWCP	wing center-of-pressure, longitudinal location, in
X_N		Orbiter nose station, in
$X_{TM_{VG}}$		longitudinal location of vertical tail-root torsional gauge, in
$X_{TM_{WG}}$		longitudinal location of wing-root torsional gauge, in
X_{VRC}		longitudinal (station) location of vertical tail reference center, in
X_{WRC}		longitudinal (station) location of wing reference center, in
$Y_{BM_{WI}}$		lateral location of inboard wing-root bending gauge, in
$Y_{BM_{WO}}$		lateral location of outboard wing-root bending gauge, in

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
Y_{CP_W}	YWCP	wing center-of-pressure, lateral location, in
Y_{WRC}		lateral (buttplane) location of wing reference center, in
$Z_{BM_{V_I}}$		vertical location of inboard vertical tail-root bending gauge, in
$Z_{BM_{V_O}}$		vertical location of outboard vertical tail-root bending gauge, in
Z_{CP_V}	ZVCP	vertical tail center-of-pressure, vertical location, in
Z_{VRC}		vertical (waterplane) location of vertical tail reference center, in
α	ALPHA	model angle-of-attack, deg
α_{N_j}		pitch angle of nozzle-j measured in a plane parallel to the Orbiter plane of symmetry, degrees
β	BETA	model angle-of-sideslip, deg
γ_{N_j}		pitch angle of nozzle-j measured in a plane which yaws with the nozzle, degrees
δ_{BF}	BDFLAP	bodyflap deflection, deg
$\delta_{E_{l_I}}$	ELV-LI	left inboard elevon deflection, deg
$\delta_{E_{l_O}}$	ELV-LO	left outboard elevon deflection, deg
$\delta_{E_{r_I}}$	ELV-RI	right inboard elevon deflection, deg
$\delta_{E_{r_O}}$	ELV-RO	right outboard elevon deflection, deg

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
δE_I	ELV-IB	inboard elevon deflection, deg
δE_O	ELV-OB	outboard elevon deflection, deg
δ_R	RUDDER	rudder deflection, deg
δ_{SB}	SPDBRK	speedbrake deflection, deg
ΔC_{p_i}	D <i>CP</i> <i>i</i>	incremental pressure coefficient, <i>i</i> = tap#
$\Delta C_{p_{av\#}}$	D <i>CP</i> # <i>A</i>	average value of incremental pressure coefficients for model surface taps
ψ_{Nj}		yaw angle of nozzle- <i>j</i> measured in an Orbiter waterplane, deg
ϕ	PHI	radial location, deg
$C_{p_{av\#}}$	CP# <i>AV</i>	average value of pressure coefficients for model surface taps
$\Delta(i)$	D(<i>i</i>)	incremental coefficient (<i>i</i>) due to thrust (<i>i</i>) \equiv previously defined coefficient
$\Delta(i)_{\delta E}$	D(<i>i</i>) <i>E</i>	incremental coefficient (<i>i</i>) due to elevon deflection, (<i>i</i>) \equiv previously defined coefficient
ℓ_B		body length, in
R/R_{od}	R/ROD	radius of tap location divided by outer radius
x_B/ℓ_B	XB/LB	SRB base longitudinal distance divided by body length

NOMENCLATURE (Concluded)

SUBSCRIPTS

B	base, body
c	chamber
e	exit
E	elevon
G	gauge
i	surface-pressure tap number
I	inboard
j	nozzle number
l	left
N	nozzle, Orbiter nose
O	outboard, Orbiter
r	right
R	rudder
S	Solid Rocket Booster
T	External Tank, total
V	vertical tail
W	wing
∞	static

CONFIGURATIONS INVESTIGATED

The model employed in Test IA80, 88-OTS, was a 0.020-scale representation of the Vehicle 5 Space Shuttle launch configuration with mated Orbiter, External Tank, and Solid Rocket Boosters. Main Propulsion System and Solid Rocket Motor cold-gas plume-simulation was made possible by dual high-pressure air-supply systems.

Various elevon control settings were incorporated in the run schedule, while no gimbal-angle changes were made on the nozzles. Several different nozzle operation pressures were set for each Mach number, and two nozzle contours were tested.

Component dimensions are presented in Table III. Control-setting parameters were as indicated in Table II. Model surface-pressure tap locations are shown in Table IV.

The Orbiter, designated as O, was comprised of components identified as follows:

<u>Component Symbol</u>	<u>Description</u>
B ₆₂	fuselage
C ₁₂	canopy
E ₅₂	elevons
F ₁₀	bodyflap
M ₁₆	OMS/RCS pods
N ₈₇	MPS nozzles, conical
N ₈₉	OMS nozzles

CONFIGURATIONS INVESTIGATED (Continued)

N ₁₀₄	MPS nozzles, contoured
R ₅	rudder/speedbrake
V ₈	vertical tail
W ₁₁₆	wing

The External Tank, designated as T₂₈, was comprised of components identified as follows:

AT ₂₈	attach structure
AT ₃₁	attach structure
AT ₃₂	attach structure
FR ₁₀	aft attach crossbeam
FL ₁₀	feedline
FL ₁₁	feedline
PT ₁₂	ET protuberances
PT ₂₂	ET protuberances
PT ₂₃	ET protuberances
PT ₂₄	ET protuberances
PT ₂₅	ET protuberances
PT ₂₆	ET protuberances
PT ₂₇	ET protuberances

CONFIGURATIONS INVESTIGATED (Concluded)

The solid rocket booster, designated as S₂₂, was composed of components identified as follows:

N ₈₈	SRB nozzles
PS ₁₁	SRB protuberances
PS ₁₂	SRB protuberances
PS ₁₃	SRB protuberances
PS ₁₄	SRB protuberances
PS ₁₇	SRB protuberances
PS ₁₈	SRB protuberances
PS ₁₉	SRB protuberances

The launch configuration was designated as OTS on the Data Set/Run Number Collation Summary sheets.

TEST FACILITY DESCRIPTION

The NASA/Ames Research Center Unitary Plan Wind Tunnel 11 x 11 transonic leg is one of three circuits operating from a common power system and two compressor systems. The 11 x 11 leg is capable of attaining Mach numbers from 0.60 to 1.40, at Reynolds numbers from 1.7×10^6 per foot to 9.4×10^6 per foot.

The tunnel is a closed-return, air-medium, variable-density facility, operating at ambient temperatures and having a bled test section for transonic conditions.

Models are supported by means of conventional stings or sting/strut assemblies for force, moment, pressure, and component-loads testing. The tunnel sector-strut system can attain angles-of-attack to ± 15 degrees and angles-of-sideslip to ± 15 degrees about its body-of-revolution.

Schlieren and shadowgraph photographic systems are available, and high-pressure air-supply systems exist for use in power-plume simulations and thrust tests.

DATA REDUCTION

Standard tunnel operation parameters were computed by the facility along with model plume-simulation pressure data, model surface-pressure values and coefficients, rudder and elevon hinge-moments, and air-supply temperatures. Model angle-of-attack was determined by the onboard dangleometer. Furthermore, wing and vertical-tail bending and torsional moments were recorded and reduced to present centers-of-pressure and forces.

The following equations and methods were used:

Wing Normal-Force Coefficient:

$$C_{N_W} = \frac{BM_{W_I} - BM_{W_O}}{(Y_{BM_{W_O}} - Y_{BM_{W_I}}) S q}$$

Wing-Root Bending-Moment Coefficient:

$$C_{B_W} = \left[\frac{BM_{W_O}}{S q b} \right] + \left[\frac{C_{N_W} (Y_{BM_{W_O}} - Y_{WRC})}{b} \right]$$

or:

$$= \left[\frac{BM_{W_I}}{S q b} \right] + \left[\frac{C_{N_W} (Y_{BM_{W_I}} - Y_{WRC})}{b} \right]$$

Wing-Root Torsional-Moment Coefficient

$$C_{T_W} = \left[\frac{TM_{W_G}}{S q \bar{c}} \right] - \left[\frac{C_{N_W} (X_{TM_{W_G}} - X_{WRC})}{\bar{c}} \right]$$

DATA REDUCTION (Continued)

Wing-Center-of-Pressure:

$$\begin{aligned}
 x_{CP_W} &= x_{TM_{WG}} - \left[\frac{TM_{WG}}{S C_{N_W} q} \right] \\
 y_{CP_W} &= y_{BM_{WI}} + \left[\frac{BM_{WI}}{S C_{N_W} q} \right] \\
 &\text{or: } = y_{BM_{WO}} + \left[\frac{BM_{WO}}{C_{N_W} S q} \right]
 \end{aligned}$$

Vertical Tail Side-Force Coefficient:

$$c_{Y_V} = \frac{BM_{VI} - BM_{VO}}{(Z_{BM_{VO}} - Z_{BM_{VI}}) S_V q}$$

Vertical Tail-Root Bending-Moment Coefficient:

$$\begin{aligned}
 c_{B_V} &= \left[\frac{BM_{VO}}{S_V q b_V} \right] + \left[\frac{c_{Y_V} (Z_{BM_{VO}} - Z_{VRC})}{b_V} \right] \\
 &= \left[\frac{BM_{VI}}{S_V q b_V} \right] + \left[\frac{c_{Y_V} (Z_{BM_{VI}} - Z_{VRC})}{b_V} \right]
 \end{aligned}$$

Vertical Tail-Root Torsional-Moment Coefficient:

$$c_{T_V} = \left[\frac{TM_{VG}}{S_V q \bar{c}_V} \right] = \left[\frac{c_{Y_V} (x_{TM_{VG}} - x_{VRC})}{\bar{c}_V} \right]$$

DATA REDUCTION (Continued)

Vertical Tail Center-of-Pressure:

$$\begin{aligned}
 x_{CP_V} &= x_{TM_{VG}} - \left[\frac{TM_{VG}}{C_{Y_V} S_V q} \right] \\
 z_{CP_V} &= z_{BM_{VI}} + \left[\frac{BM_{VI}}{C_{Y_V} S_V q} \right] \\
 &\text{or:} \\
 &= z_{BM_{VO}} + \left[\frac{BM_{VO}}{C_{Y_V} S_V q} \right]
 \end{aligned}$$

Nozzle-Pressure Ratios:

$$CPR_j = \frac{P_{c_j}}{P_\infty}$$

$$EPR_j = \frac{P_{e_j}}{P_\infty}$$

where: j =

- 1, Top MPS nozzle
- 2, L.H. MPS nozzle
- 3, R.H. MPS nozzle
- 4, L.H. SRB nozzle
- 5, R.H. SRB nozzle

Hinge-Moments:

$$C_{H_{EI}} = \frac{HM_{EI}}{S_E q \bar{c}_E}$$

$$C_{H_{EO}} = \frac{HM_{EO}}{S_E q \bar{c}_E}$$

$$C_{H_{ET}} = C_{H_{EI}} + C_{H_{EO}}$$

$$C_{H_R} = \frac{HM_R}{S_R q \bar{c}_R}$$

DATA REDUCTION (Continued)

Surface-Pressure Coefficients:

$$C_{p_i} = \frac{P_i - P_\infty}{q}$$

Coefficient averages:

For $i = 2, 21, 22, 39, 40, 60, 67, 68, 75, 76$

$$C_{p_{av_i}} = (C_{p_i} + C_{p_{i+2}} + C_{p_{i+4}} + C_{p_{i+6}}) / 4$$

For $i = 12, 29, 30, 47, 48:$

$$C_{p_{av_i}} = (C_{p_i} + C_{p_{i+2}} + C_{p_{i+6}} + C_{p_{i+8}}) / 4$$

And:

$$C_{p_{av_{13}}} = (C_{p_{13}} + C_{p_{17}} + C_{p_{19}}) / 3$$

$$C_{p_{av_{59}}} = (C_{p_{59}} + C_{p_{61}} + C_{p_{63}} + C_{p_{67}}) / 4$$

To reflect plume effects on surface pressures, incremental data were computed from results of tests with plume simulation and tests without plume simulation:

$$\Delta C_{p_i} = C_{p_i} \left(\begin{smallmatrix} \text{with} \\ \text{plume} \end{smallmatrix} \right) - C_{p_i} \left(\begin{smallmatrix} \text{without} \\ \text{plume} \end{smallmatrix} \right)$$

$$\Delta C_{p_{av_i}} = C_{p_{av_i}} \left(\begin{smallmatrix} \text{with} \\ \text{plume} \end{smallmatrix} \right) - C_{p_{av_i}} \left(\begin{smallmatrix} \text{without} \\ \text{plume} \end{smallmatrix} \right)$$

DATA REDUCTION (Continued)

<u>Symbol</u>	<u>Full-Scale</u>	<u>Model-Scale</u>
b	936.68 in	18.734 in
b _V	315.72 in	6.3144
\bar{c}	474.8 in	9.496 in
\bar{c}_E	90.70 in	1.814 in
\bar{c}_R	73.20 in	1.464 in
\bar{c}_V	199.81 in	3.996 in
ℓ_B	1290.3 in	25.806 in
S _E	210.00 ft ²	0.08400 ft ²
S _R	100.15 ft ²	0.04006 ft ²
S	2690.0 ft ²	1.0760 ft ²
S _V	413.25 ft ²	0.16530 ft ²
X _N	235.0	4.700 in
X _{TMVG}	—	28.5500 in
X _{TMWG}	—	24.6400 in
X _{VRC}	1414.3 in	28.286 in
X _{WRC}	1307.0 in	26.140 in
Y _{BMWI}	—	2.4962 in
Y _{BMWO}	—	3.9037 in

DATA REDUCTION (Concluded)

<u>Symbol</u>	<u>Full-Scale</u>	<u>Model-Scale</u>
Y _{WRC}	106.0 in	2.120 in
Z _{BM_VI}	—	10.4681 in
Z _{BM_VO}	—	11.3935 in
Z _{VRC}	503.0 in	10.060 in

Resulting data are presented in the data figures and in the appendix.

RESULTS AND DISCUSSION

Generally high data confidence can be ascribed to the results of this test program, as instrumentation anomalies were few and correctable. Most data error was attributable to model failure, and the following outlines those incidents.

Hinge-moment data was consistently good with only minor zero-return changes due to gradual wear of hinge bearings in the elevons.

Post test data-correction factors had to be applied to Main Propulsion System nozzle chamber pressure readings, as the total-pressure probes progressively failed during testing. However, these corrections were small, on the order of 1%, and are already incorporated in data presented herein.

Scanivalve-measured Orbiter, External Tank, and Solid Rocket Booster surface pressures were also extremely reliable, with only one orifice apparently plugged, Tap #30 shown in Table 4.

Due to the loss of the right-hand contoured MPS nozzle during Run 311, all contoured-nozzle configuration testing after Run 313 employed the conical nozzle in the top-center location. The top-center contoured nozzle was used in the right-hand location, consequently.

TABLE I

TEST : IA80		DATE : 8 NOV., 1974	
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.60	1.75×10^6	1.46	77
0.60	2.56×10^6	2.13	81
0.60	3.39×10^6	2.93	91
0.90	2.17×10^6	2.44	85
0.90	3.13×10^6	3.62	90
0.90	4.26×10^6	4.48	92
1.10	2.25×10^6	2.93	90
1.10	3.27×10^6	4.26	94
1.10	4.30×10^6	5.79	109
1.25	2.27×10^6	3.11	90
1.25	3.29×10^6	4.52	94
1.25	4.36×10^6	6.16	105
1.40	2.23×10^6	3.18	90
1.40	3.22×10^6	4.62	96
1.40	4.25×10^6	6.32	111

BALANCE UTILIZED: None

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	_____	_____	_____
SF	_____	_____	_____
AF	_____	_____	_____
PM	_____	_____	_____
RM	_____	_____	_____
YM	_____	_____	_____

COMMENTS:

TEST: IASO

TABLE II.

DATA SET RUN NUMBER COLLATION SUMMARY

DATE: 8 NOV 74

DATA SET
IDENTIFIER

CONFIGURATION

SCHED.

PARAMETERS/VALUES

NO.
OF
RUNS

ANGLE-OF-ATTACK

RE4001

OTS

 α β

SRB

SSMB

SEL

SEO

RN

M

-4

0

4

240

241

242

222

223

224

74

75

76

48

49

50

1

2

3

243

244

245

225

226

227

77

78

79

51

52

53

4

5

6

249

250

251

231

232

233

80

81

82

54

55

56

7

8

9

234

235

236

83

84

85

57

58

59

TEST RUN NUMBER

1 7 13 19 25 31 37 43 49 55 61 67 73 76

SEE ATTACHED SHEET FOR COMPLETE COEFFICIENT SCHEDULES

α OR β SCHEDULES

COEFFICIENTS

IDVAR (1) IDVAR (2) IDVAR (3)

TABLE II. - Continued.

TEST: IA80		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE:								
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES								NO. OF RUNS	ANGLE-OF-ATTACK							
		α	β	3RB	SSME	SEI	SEO	RN	M											
REH019	OTS		B	N	N-	0	0	4.25	1.4						-4	0	4			
20				N	N			3.4	0.6						10	11	12			
21								4.25	0.9						246	247	248			
22									1.1						228	229	230			
23									1.25						86	87	88			
24				↓	↓				1.4						60	61	62			
25				N-	N				1.1						13	14	15			
26				↓	↓				1.25						89	90	91			
27				↓	↓			↓	1.4						63	64	65			
28				OFF	OFF			3.4	0.6						16	17	18			
29								4.25	0.9						237	238	239			
30									1.1						219	220	221			
31									1.25						69	70	71			
32								↓	1.4						66	67	68			
33								1.75	0.6						19	20	21			
34								2.25	0.9						270	271	272			
35									1.1						267	268	269			
↓ 36	↓		↓	↓	↓	↓	↓	↓	1.25						22	23	24			
															30	31	32			
1	7	13	19	25	31	37	43	49	55	61	67	75	76							
COEFFICIENT S																		IDVAR (1)	IDVAR (2)	NDV
α OR β																				
SCHEDULES																				

TEST RUN NUMBERS

ORIGINAL PAGE IS

37

TABLE II. - Continued.

TEST: IA80		DATA SET/RUN NUMBER COLLATION SUMMARY												DATE:				
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES								NO. OF RUNS	ANGLE-OF-ATTACK					
		α	β	SRB	SSME	SEI	SEO	RN	M						MACH NO.	-4	0	4
RE4037	PTS		B	OFF	OFF	0	0	2.25	1.4							33	34	35
38				N	N			1.75	0.6							273	274	275
39								2.25	0.9							264	265	266
40				↓	↓			2.25	1.1							27	28	29
41				OFF	OFF			2.5	0.6							252	253	254
42								3.25	0.9							258	259	260
43								1.1								36	37	38
44								1.25								42	43	44
45				↓	↓			↓	1.4							45	46	47
46				N	N			2.5	0.6							255	256	257
47								3.25	0.9							261	262	263
48				↓	↓	↓	↓	3.25	1.1							39	40	41
49				0	OFF	OFF	8	4	4.25	V				92				
50				0	N	N				V				93				
51				B	OFF	OFF				0.98						112	113	114
52					N	N			↓	0.98						115	116	117
53					OFF	OFF			3.4	0.6						288	289	290
↓ 54	↓			↓	↓	↓	↓	↓	4.25	0.9						296	297	298

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS
IDVAR (1)
IDVAR (2)
NOV

α OR β

SCHEDULES

ORIGINAL PAGE IS

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TEST RUN NUMBERS

TABLE II. - Continued.

TEST: IA 80		DATA SET/RUN NUMBER COLLATION SUMMARY												DATE:					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	ANGLE-OF-ATTACK				
		α	β	SRB	SSME	SEI	SEO	RN	MI										
REH/055	QTS		B	OFF	OFF	8	4	4.25	1.1								-4	0	4
56								1.25									106	107	108
57								1.4									94	95	96
58				N	N			3.4	0.6								100	101	102
59								4.25	0.9								291	292	293
60								1.1									299	300	301
61								1.25									109	110	111
62								1.4									97	98	99
63				N	N			0.98									103	104	105
64				OFF	OFF	8	-4	3.4	0.6								118	119	120
65								4.25	0.9								314	315	316
66								1.1									302	303	304
67								1.25									133	134	135
68								1.4									127	128	129
69				N	N			3.4	0.6								121	122	123
70								4.25	0.9								317	318	319
71								1.1									305	306	307
72								1.25									136	137	138
																	130	131	132

7
13
19
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61
67
75
76

α OR β
SCHEDULES

COEFFICIENTS

IDVAR (1) IDVAR (2) NDV

TEST RUN NUMBERS

ORIGINAL PAGE IS

39

TABLE II. - Continued.

TEST: IA80		DATA SET/RUN NUMBER COLLATION SUMMARY												DATE:				
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	ANGLE-OF-ATTACK			
		α	β	SRB	SSME	SET	SEO	RN	M								-4	0
REL073	QTS		B	N	N	8	-4	4.25	1.4							124	125	126
74				OFF	OFF	8	0	3.4	0.6							276	277	278
75								4.25	0.9							292	293	294
76									1.1							153	154	155
77									1.25							147	148	149
78				↓	↓			↓	1.4							141	142	143
79				N	N			3.4	0.6							279	280	281
80								4.25	0.9							295	296	297
81									1.1							156	157	158
82									1.25							150	151	152
83				↓	↓	↓	↓	↓	1.4							144	145	146
84				OFF	OFF	9	2	3.4	0.6							326	327	328
85								4.25	0.9							320	321	322
86				↓	↓			↓	1.1							159	160	161
87				N	N			3.4	0.6							329	330	331
88								4.25	0.9							323	324	325
89				↓	↓	↓	↓	4.25	1.1							162	163	164
↓ 90	↓		↓	OFF	OFF	4	4	3.4	0.6							332	333	334
		1	7	13	19	25	31	37	43	49	55	61	67	73	79	85	91	97
COEFFICIENTS																		
IDVAR (1) IDVAR (2) NO.																		
α OR β																		
SCHEDULES																		

TABLE II. - Continued.

TEST : <i>IA 80</i>		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE :					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES								NO. OF RUNS	ANGLE-OF-ATTACK				
		α	β	SRB	SME	SEI	SEO	RN	M								
<i>REH091</i>	<i>OTS</i>		<i>B</i>	<i>OFF</i>	<i>OFF</i>	<i>4</i>	<i>4</i>	<i>4.25</i>	<i>0.9</i>						<i>338</i>	<i>339</i>	<i>340</i>
<i>92</i>									<i>1.1</i>						<i>177</i>	<i>178</i>	<i>179</i>
<i>93</i>									<i>1.25</i>						<i>171</i>	<i>172</i>	<i>173</i>
<i>94</i>				<i>↓</i>	<i>↓</i>			<i>↓</i>	<i>1.4</i>						<i>165</i>	<i>166</i>	<i>167</i>
<i>95</i>				<i>N</i>	<i>N</i>			<i>3.4</i>	<i>0.6</i>						<i>335</i>	<i>336</i>	<i>337</i>
<i>96</i>								<i>4.25</i>	<i>0.9</i>						<i>341</i>	<i>342</i>	<i>343</i>
<i>97</i>									<i>1.1</i>						<i>180</i>	<i>181</i>	<i>182</i>
<i>98</i>									<i>1.25</i>						<i>174</i>	<i>175</i>	<i>176</i>
<i>99</i>				<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>1.4</i>						<i>168</i>	<i>169</i>	<i>170</i>
<i>A0</i>				<i>OFF</i>	<i>OFF</i>	<i>0</i>	<i>4</i>	<i>3.4</i>	<i>0.6</i>						<i>344</i>	<i>345</i>	<i>346</i>
<i>A1</i>								<i>4.25</i>	<i>0.9</i>						<i>350</i>	<i>351</i>	<i>352</i>
<i>A2</i>									<i>1.1</i>						<i>195</i>	<i>196</i>	<i>197</i>
<i>A3</i>									<i>1.25</i>						<i>189</i>	<i>190</i>	<i>191</i>
<i>A4</i>				<i>↓</i>	<i>↓</i>			<i>↓</i>	<i>1.4</i>						<i>183</i>	<i>184</i>	<i>185</i>
<i>A5</i>				<i>N</i>	<i>N</i>			<i>3.4</i>	<i>0.6</i>						<i>347</i>	<i>348</i>	<i>349</i>
<i>A6</i>								<i>4.25</i>	<i>0.9</i>						<i>353</i>	<i>354</i>	<i>355</i>
<i>A7</i>									<i>1.1</i>						<i>198</i>	<i>199</i>	<i>200</i>
<i>↓ A8</i>	<i>↓</i>		<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>1.25</i>						<i>192</i>	<i>193</i>	<i>194</i>
<div><div><div>17</div><div>1</div><div>7</div><div>13</div><div>19</div><div>25</div><div>31</div><div>37</div><div>43</div><div>49</div><div>55</div><div>61</div><div>67</div><div>73</div><div>79</div></div></div>																	
<div><div><div>α OR β</div><div>SCHEDULES</div></div><div>COEFFICIENTS</div><div><div>IDVAR (1)</div><div>IDVAR (2)</div><div>NOV</div></div></div>																	

TEST RUN NUMBERS

1

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TABLE II. - Concluded.

DATASETS	IDVAR(1)	IDVAR(2)	COEFFICIENTS
RE40XX EE4XXX	ALPHA ALPHA	BETA BETA	CBMW, CTMW, CNW, CHEI, CHEO, CBMV, CTMV, CYV, CHR, MACH XWCP, YWCP, XVCP, ZVCP
AE4XXX	ALPHA	BETA	CP379, CP717, CP380, CP718, CP381, CP716, CP720, CP719, CP374, CP376
BE4XXX	ALPHA	BETA	CP2, CP4, CP6, CP8, CP12, CP14, CP18, CP20
CE4XXX	ALPHA	BETA	CP29, CP31, CP35, CP37, CP30, CP32, CP36, CP38
DE4XXX	ALPHA	BETA	CP76, CP78, CP80, CP82, CP75, CP77, CP79, CP81
FE4XXX	ALPHA	BETA	CP378, CP715, CP375, CP377, CP721, CP372, CP714, CP722, CP373, CP713
GE4XXX	ALPHA	BETA	CP723, CP371, CP370, CP724
HE4XXX	ALPHA	BETA	CP22, CP24, CP26, CP28, CP21, CP23, CP25, CP27
IE4XXX	ALPHA	BETA	CP13, CP17, CP19
JE4XXX	ALPHA	BETA	CP39, CP41, CP43, CP45, CP40, CP42, CP44, CP46
KE4XXX	ALPHA	BETA	CP47, CP49, CP53, CP55, CP48, CP50, CP54, CP56
LE4XXX	ALPHA	BETA	CP60, CP62, CP64, CP66, CP59, CP61, CP63, CP65
ME4XXX	ALPHA	BETA	CP68, CP70, CP72, CP74, CP67, CP69, CP71, CP73
RE4CXX	ALPHA	BETA	CP for pressure taps* 9, 10, 15, 16, 33, 34, 51, 54, 57, 58
RE4DXX	ALPHA	BETA	CP for pressure taps* 700, 702, 704, 706, 382, 384, 708, 710, 383, 385
RE4EXX	ALPHA	BETA	CP for pressure taps* 701, 703, 705, 707, 386, 388, 709, 711, 387, 389
RE4GXX	ALPHA	BETA	CP for pressure taps* 518, 805, 800, 521, 806, 801, 804, 807, 802, 515, 808, 803
RE4HXX	ALPHA	BETA	CP for pressure taps* 541, 810, 814, 821, 826, 815, 811, 816, 822, 827, 817, 823, 828, 832, 812, 818, 824, 829, 830, 833, 809, 813, 819, 820, 825, 831, 834
RE4IXX	ALPHA	BETA	CP for pressure taps* 841, 842, 843, 844

* See TABLE IV for tap locations.

Table III Model Dimensional Data

MODEL COMPONENT: ATTACH STRUCTURE - AT 28

GENERAL DESCRIPTION: Rear orbiter to ET attach structure (LH and RH) (2 members)

MODEL SCALE: 0.020

MODEL DRAWING NO.: _____

DRAWING NO.: VL78-000063, VL78-000062B

DIMENSIONS:

MEMBER		FULL SCALE	MODEL SCALE
#1	X _O	<u>1317.00</u>	<u>26.34</u>
	Y _O	<u>- 96.50 (LH) -</u>	<u>1.930</u>
		<u>96.50 (RH)</u>	<u>1.930</u>
	Z _O	<u>267.50</u>	<u>5.350</u>
	X _T	<u>2058.00</u>	<u>41.16</u>
	Y _T	<u>-125.68 (LH) -</u>	<u>2.514</u>
		<u>125.68 (RH)</u>	<u>2.514</u>
	Z _T	<u>515.5</u>	<u>10.310</u>
#2	X _O	<u>1317.00</u>	<u>26.34</u>
	Y _O	<u>- 96.50 (LH) -</u>	<u>1.930</u>
		<u>96.50 (RH)</u>	<u>1.930</u>
	Z _O	<u>267.50</u>	<u>5.350</u>
	X _T	<u>1872.00</u>	<u>37.44</u>
	Y _T	<u>-125.68 (LH) -</u>	<u>2.514</u>
		<u>125.68 (RH)</u>	<u>2.514</u>
	Z _T	<u>504.5</u>	<u>10.090</u>
Diameter, In.	#1	<u>11.5</u>	<u>0.230</u>
	#2	<u>15.5</u>	<u>0.310</u>

Table III (Cont'd)

MODEL COMPONENT: ATTACH STRUCTURE - AT 31

GENERAL DESCRIPTION: REAR ET to SRB attach structure (LH and RH). (3 members)

MODEL SCALE: 0.020

MODEL DRAWING: _____

DRAWING NO.: VL78-000063, -000062B, -000066

DIMENSIONS:	MEMBER	FULL SCALE	MODEL SCALE
X _T	#1	2058.00	41.16
Y _T		-171.50	- 3.430 (LH)
		171.50	3.430 (RH)
Z _T		457.00	9.140
X _s		1511.00	41.16
Y _s		53.24	1.064
Z _s		57.00	1.14
X _T	#2	2058.00	41.16
Y _T		-163.85	- 3.277
Z _T		449.81	8.996
X _s		1511.00	30.22
Y _s		76.56	1.531
Z _s		15.73	0.315
X _T	#3	2058	41.16
Y _T		-161.72	-3.234
Z _T		343.00	6.860
X _s		1511.00	30.22
Y _s		53.24	1.597
Z _s		- 57.00	-1.140
Diameter of members, In.:	#1	_____	_____
	#2	_____	_____
	#3	_____	_____

Table III (Cont'd)

MODEL COMPONENT: ATTACH STRUCTURE - AT 32

GENERAL DESCRIPTION: Forward orbiter/ET attach structure (2 members)

MODEL SCALE: 0.020

DRAWING NO.: VL78-000062B, Martin Marietta 8260020914

DIMENSIONS:		<u>MEMBER</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Member	#1			
		X _O	<u>388.15</u>	<u>7.763</u>
		Y _O	<u>0</u>	<u>0</u>
(Attach point on Orbiter Z _T 614)		Z _O	<u>LWR ML</u>	<u>LWR ML</u>
		X _T	<u>1129.9</u>	<u>22.598</u>
		Y _T	<u>46.50</u>	<u>9.300</u>
(Attach point on Tank)		Z _T	<u>562.58</u>	<u>11.251</u>
	#2			
		X _O	<u>388.15</u>	<u>7.763</u>
		Y _O	<u>0</u>	<u>0</u>
		Z _O	<u>LWR ML</u>	<u>LWR ML</u>
		X _T	<u>1129.9</u>	<u>22.598</u>
		Y _T	<u>-46.50</u>	<u>-0.930</u>
		Z _T	<u>562.58</u>	<u>11.252</u>
Diameter, In.	#1		<u>6.00</u>	<u>0.120</u>
	#2		<u>6.00</u>	<u>0.120</u>

Table III (Cont'd)

MODEL COMPONENT : BODY B₆₂

GENERAL DESCRIPTION : Configuration 140C orbiter fuselage, MCR 200-R4.

Similar to 140A/B fuselage except aft body revised and improved midbody-wing-boot fairing, $X_o = 940$ to $X_o = 1040$.

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000140C, -000202C, -000205A
-000200B, -000203

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (IML: Fwd Sta $X_o=238$), In.	1290.3	25.806
Length (OML: Fwd Sta $X_o=235$), In.	1293.3	25.866
Max Width (At $X_o = 1528.3$), In.	264.0	5.280
Max Depth (At $X_o = 1464$), In.	250.0	5.00
Fineness Ratio	4.899	4.899
Area - Ft ²		
Max. Cross-Sectional	340.885	0.136
Planform		
Wetted		
Base		

Table III (Cont'd)

MODEL COMPONENT : CANOPY - C₁₂

GENERAL DESCRIPTION : Configuration 140C orbiter canopy. Vehicle Cabin No. 31 updated to MCR 200-R4. Used with Fuselage B₆₂.

MODEL SCALE: 0.020

DRAWING NUMBER : VL70-000140C, -000202B, -000204

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length($X_O = 434.643$ to 578), In.	<u>143.357</u>	<u>2.867</u>
Max Width (At $X_O = 513.127$), In.	<u>152.412</u>	<u>3.048</u>
Max Depth (At $Z_O = 501$ to 449.39), In.	<u>51.61</u>	<u>1.032</u>
Fineness Ratio	<u> </u>	<u> </u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table III (Cont'd)

MODEL COMPONENT: ELEVON - E₅₂

GENERAL DESCRIPTION: Elevon for configuration 140C. Hingeline at $X_o = 1387$,
elevon split line $X_w = 312.5$. 6.0" gaps, beveled edges, and centerbodies.

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000140C, -006089, -006092, SS-A01260

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>210.0</u>	<u>0.084</u>
Span (equivalent) , In.	<u>349.2</u>	<u>6.984</u>
Inb'd equivalent chord , In.	<u>118.0</u>	<u>2.360</u>
Outb'd equivalent chord , In.	<u>55.19</u>	<u>1.104</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.0</u>	<u>0.0</u>
Tailing Edge	<u>-10.056</u>	<u>-10.056</u>
Hingeline (Product of area & \bar{c})	<u>0.0</u>	<u>0.0</u>
Area Moment , Ft ³	<u>1587.25</u>	<u>0.0127</u>
Mean Aerodynamic Chord, In.	90.7	1.814
Hingeline dihedral (origin at $Z_o = 261.3509$), deg.)	5.229	5.229

Table III (Cont'd)

MODEL COMPONENT : BODY FLAP - F₁₀

GENERAL DESCRIPTION : Configuration 140C body flap. Hingeline located
at X₀ = 1532, Z₀ = 287.

MODEL SCALE: 0.020

DRAWING NUMBER : VL70-000140C, -355114

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X ₀ = 1525.5 to 1613), In.	<u>87.50</u>	<u>1.750</u>
Max Width (At L.E., X ₀ = 1525.5) In.	<u>256.00</u>	<u>5.12</u>
Max Depth (X ₀ = 1532.0), In.	<u>19.798</u>	<u>0.594</u>
Fineness Ratio	<u> </u>	<u> </u>
Area - Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional (At H.L.)	<u>35.196</u>	<u>0.0317</u>
Planform	<u>135.00</u>	<u>0.1215</u>
Wetted	<u> </u>	<u> </u>
Base (X ₀ = 1613)	<u>4.89</u>	<u>0.0044</u>

Table III (Cont'd)

MODEL COMPONENT: FEEDLINE - FL₁₀

GENERAL DESCRIPTION: LH₂ feedline on upper left-hand side of T₂₈.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B

DIMENSIONS:		<u>FULL SCALE</u>	<u>NNMODEL SCALE</u>
Leading edge at:	X _T	2071.5	41.430
	Y _T	- 70.00	-1.400
	Z _T	573.934	11.479
Trailing edge at:	X _T	2081.8	41.636
	Y _T	- 70.00	-1.400
	Z _T	584.059	11.681
Diameter of line (17.0 I.D.)		18.160	0.363

Table III (Cont'd)

MODEL COMPONENT: FEEDLINE - FL₁₁

GENERAL DESCRIPTION: LO₂ feedline on upper right-hand of T₂₈

MODEL SCALE: 0.020

DRAWING NUMBER: VL78-000063, -000062B

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	1000.667	20.013
	Y _T	70.00	1.400
	Z _T	150.519	3.010
Trailing edge at:	X _T	2071.5	41.430
	Y _T	70.00	1.400
	Z _T	573.934	11.479
Diameter of line (17.0 I.D.)		18.16 O.D.	0.363

Table III (Cont'd)

MODEL COMPONENT: FAIRING - FR₁₀

GENERAL DESCRIPTION: Umbilical door fairing between aft ET/ Orbiter
attach structure.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	2052.0	41.04
Length		193.0	3.86
Width		15.00	0.300

Table III (Cont'd)

MODEL COMPONENT : OMS POD - M₁₆

GENERAL DESCRIPTION : Configuration 140C orbiter OMS pod - short
pod.

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-008401, -008410

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta $X_O = 1310.5$), In.	<u>258.50</u>	<u>5.170</u>
Max Width (At $X_O = 1511$), In.	<u>136.8</u>	<u>2.736</u>
Max Depth (At $X = 1511$), In.	<u>74.70</u>	<u>1.474</u>
Fineness Ratio	<u>2.484</u>	<u>2.484</u>
Area - Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>58.864</u>	<u>0.024</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table III (Cont'd)

MODEL COMPONENT: MPS NOZZLES - N87GENERAL DESCRIPTION: Flow-through MPS nozzles.MODEL SCALE: 0.020DRAWING NUMBER: SS-A01279

DIMENSIONS:

FULL SCALEMODEL SCALE

MACH NO. 1.55, 2.0, 2.2, 2.6, 3.0, 3.5

Length - In.

Gimbal Point to Exit Plane
Throat to Exit Plane157.03.140181.553.361

Diameter - In.

Exit
Throat
Inlet90.4351.80923.3500.467Area - ft²Exit
Throat44.6070.1782.9740.00198

Gimbal Point (Station) - In.

Upper Nozzle

X_o
Y_o
Z_o1445.0028.900.00.0443.008.86

Lower Nozzles

X_o
Y_o
Z_o1468.1729.363±53.0±1.06342.646.853

Null Position - Deg.

Upper Nozzle

Pitch
Yaw161600

Lower Nozzle

Pitch
Yaw101000

Table III (Cont'd)

MODEL COMPONENT: SRB NOZZLE - N₈₈

GENERAL DESCRIPTION: Flow-through SRB nozzle simulator = 7.0 prototype.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01281

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO. 1.55, 2.0, 2.2, 2.6, 3.0, 3.5		
Length - In.		
Gimbal Point to Exit Plane	<u>86.8</u>	<u>1.736</u>
Throat to Exit Plane	<u>112.135</u>	<u>2.243</u>
Diameter - In.		
Exit	<u>114.290</u>	<u>2.886</u>
Throat	<u>64.53</u>	<u>1.291</u>
Inlet		
Area - ft ²		
Exit	<u>356.738</u>	<u>0.143</u>
Throat	<u>22.712</u>	<u>0.009</u>
Gimbal Point (Station) - In.		
X _B	<u>1902.6</u>	<u>38,052</u>
Y _B	<u>250.2</u>	<u>5.010</u>
Z		
Lower Nozzles		
X		
Y		
Z		
Null Position - Deg.		
Pitch	<u>0</u>	<u>0</u>
Yaw	<u>0</u>	<u>0</u>
Lower Nozzle		
Pitch		
Yaw		

Table III (Cont'd)

MODEL COMPONENT: OMS NOZZLES - N₈₉

GENERAL DESCRIPTION: OMS nozzle in stowed position which is outboard 8 deg. and down 7 deg. from null position. Use with M₁₆.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01279

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	<u>56.0</u>	<u>1.12</u>
Throat to Exit Plane	<u> </u>	<u> </u>
Diameter - In.		
Exit (.O.D.)	<u>50.0</u>	<u>1.00</u>
Throat	<u> </u>	<u> </u>
Inlet	<u> </u>	<u> </u>
Area - ft ²		
Exit	<u> </u>	<u> </u>
Throat	<u> </u>	<u> </u>
Gimbal Point (Station) - In.		
X ₀	<u>1518.00</u>	<u>30.360</u>
Y ₀	<u>88.00</u>	<u>1.76</u>
Z ₀	<u>492.0</u>	<u>9.84</u>
Lower Nozzles		
X	<u> </u>	<u> </u>
Y	<u> </u>	<u> </u>
Z	<u> </u>	<u> </u>
Null Position - Deg.		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw	<u>6°30'</u>	<u>6°30'</u>
Lower Nozzle		
Pitch	<u> </u>	<u> </u>
Yaw	<u> </u>	<u> </u>

Table III (Cont'd)

MODEL COMPONENT: NOZZLES - N₁₀₄

GENERAL DESCRIPTION: Flow-through MPS nozzles with gimbal capability.

Same as N₈₇, except that these nozzles have contoured interior, the exterior same as N₈₇ when shroud is attached.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01261

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	<u>157.00</u>	<u>3.14</u>
Throat to Exit Plane	<u>119.69</u>	<u>2.394</u>
Diameter - In.		
Exit	<u>90.435</u>	<u>1.809</u>
Throat	<u>30.140</u>	<u>0.603</u>
Inlet		
Area - ft ²		
Exit	<u>44.607</u>	<u>0.0178</u>
Throat	<u>4.955</u>	<u>0.00198</u>
Gimbal Point (Station) - In.		
Upper Nozzle		
X _o	<u>1445.00</u>	<u>28.90</u>
Y _o	<u>0.0</u>	<u>0.0</u>
Z _o		
Lower Nozzles		
X _o	<u>1468.17</u>	<u>29.3634</u>
Y _o	<u>53.0</u>	<u>1.06</u>
Z _o	<u>342.64</u>	<u>6.853</u>
Null Position - Deg.		
Upper Nozzle		
Pitch	<u>16</u>	<u>16</u>
Yaw	<u>0</u>	<u>0</u>
Lower Nozzle		
Pitch	<u>10</u>	<u>10</u>
Yaw	<u>30</u>	<u>30</u>
	OUTB'D 30°	OUTB'D 30°

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Table III (Cont'd)

MODEL COMPONENT : ELECTRICAL TUNNEL - PS₁₁

GENERAL DESCRIPTION : Tunnel running longitudinally on the SRB for
electrical wires.

MODEL SCALE: 0.020

DRAWING NUMBER : VC77-000002

DIMENSIONS :	FULL SCALE	MODEL SCALE
Width, In.	<u>5.70</u>	<u>0.114</u>
Radius, In.	<u>5.70</u>	<u>0.114</u>
Height, In	<u>4.70</u>	<u>0.094</u>
L.E. at Sta.	<u>494.70</u>	<u>9.894</u>
L.E. sweepback angle, Deg.	<u>30.0</u>	<u>30.0</u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table III (Cont'd)

MODEL COMPONENT: ELECTRICAL TUNNEL - PS₁₂

GENERAL DESCRIPTION: Four ring stiffeners located at the aft end of the solid rocket boosters. The stiffener is a curved I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Height, In.		2.5	0.050
Length, In.		2.0	0.04
Locations:	$X_B =$	1602.00	32.04
		1644.00	32.88
		1729.00	34.58
		1771.00	35.42

Table III (Cont'd)

MODEL COMPONENT: CIRCUMFERENTIAL STIFFENER - PS₁₃

GENERAL DESCRIPTION: Ring stiffener located at the point where the skirt flares. The stiffener is I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Height, In.		6.50	0.130
Length, In.		4.00	0.080
Location centerline	X _B	1833.70	36.674

Table III (Cont'd)

MODEL COMPONENT: SOLID ROCKET BOOSTER - EXTERNAL TANK
ATTACH - PS₁₄

GENERAL DESCRIPTION: Two-ring stiffeners located at aft end of
solid rocket boosters. The stiffener is curved I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Height, In.		8.00	0.160
Length, In.		3.00	0.060
Location centerline	X _B	1511.00	30.22

Table III (Cont'd)

MODEL COMPONENT: SRB PROTUBERANCES - PS₁₇

GENERAL DESCRIPTION: Electrical connecting box mounted on top of PS₁₄.

MODEL SCALE: 0.020

DRAWING NO.: None

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Width, In.	60.00	1.200
Depth, In.	17.5	0.350

Centerline of box located 15 deg inboard from vertical plane of symmetry.

Table III (Cont'd)

MODEL COMPONENT: SRB PROTUBERANCE - PS₁₈

GENERAL DESCRIPTION: Tie-down fixtures mounted on the aft skirt. Total of four founted 30 deg. on both sides of vertical plane of symmetry.

MODEL SCALE: 0.020

DRAWING NO.: None

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Sta. of leading edge (X_B)	1861.2	37.224
Sta. of Trailing Edge (X_B)	1925.2	38.504
Max. width, In.	14.2	0.284
Height, In.	8.3	0.166

Table III (Cont'd)

MODEL COMPONENT: SRB PROTUBERANCES - PS₁₉

GENERAL DESCRIPTION: Aft separation motor pod mounted on aft skirt
at 20 deg. inboard from top vertical plane of symmetry.

MODEL SCALE: 0.020

DRAWING NO.: None

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Width, In.	14.0	0.280
Height, In. (at Trailing edge)	19.0	0.380
Sweepback of leading edge, deg.	15.0	15.0

Table III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCE - PT₁₂

GENERAL DESCRIPTION: Lightning rod attached to ET nose.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000068A

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	30.90	0.618
Diameter, In.	3.20	0.096

Table III (Cont'd)

MODEL COMPONENT: ELECTRICAL LINE - PT₂₂

GENERAL DESCRIPTION: Left-hand electrical conduit line on T₂₈.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B

DIMENSIONS:

		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	1084.333	21.687
	Y _T	- 99.591	- 1.992
	Z _T	-139.620	- 2.794
Trailing edge at:	X _T	2058.00	41.16
	Y _T	- 99.491	-1.992
	Z _T	-139.620	-2.794
Conduit size:		2.0 x 6.0	0.04 x 0.12

Centerline of line located radially at $\phi = 35.5$ deg.

Table III (Cont'd)

MODEL COMPONENT: LO₂ RECIRCULATION LINE - PT₂₃

GENERAL DESCRIPTION: LO₂ recirculation line on right-hand upper side
of T₂₈.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	1040.667	20.813
	Y _T	94.169	1.883
	Z _T	540.934	11 11.817
Trailing edge at:	X _T	2062.920	41.258
	Y _T	70.00	1.40
	Z _T	573.934	11.479
Diameter of line		4.00	0.080

Centerline of lines located radially at $\phi = 33^{\circ} 45'$

(Right of TDC looking forward).

Table III (Cont'd)

MODEL COMPONENT: LH₂ RECIRCULATION LINE - PT₂₄

GENERAL DESCRIPTION: LH₂ recirculation line on T₂₈.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	1040.667	20.813
	Y _T	- 94.169	-1.883
	Z _T	540.934	11.819
Trailing edge at:	X _T	2062.920	41.258
	Y _T	- 70.00	-1.400
	Z _T	573.934	11.479
Diameter of line		4.0	0.080

Centerline of line located radially at $\phi = 33^{\circ}45'$

(Left of TDL looking forward).

Table III (Cont'd)

MODEL COMPONENT: ELECTRICAL LINE - PT₂₅

GENERAL DESCRIPTION: Right-hand aft electrical conduit line on T₂₈
with LH₂ pressure sensor line and LOX vent valve actuator line.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	1084.333	21.687
	Y _T	99.591	1.992
	Z _T	139.620	2.792
Trailing edge at:	X _T	2058.000	41.16
	Y _T	99.591	1.992
	Z _T	139.620	2.792
Conduit size		2.0 x 6.0	0.04 x 0.12
Centerline of line located radially at $\phi = 35.5$ deg.			

Table III (Cont'd)

MODEL COMPONENT: LOX PRESSURE LINE - PT₂₆

GENERAL DESCRIPTION: LOX pressure line on the T₂₈.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	360.733	7.215
	Y _T	15.145	0.303
	Z _T	407.718	8.154
Trailing edge at:	X _T	2083.5	41.670
	Y _T	63.25	1.265
	Z _T	609.00	12.180
Line diameter		2.0	0.040

Centerline of line located radially at $\phi = 27$ deg.

Table III (Cont'd)

MODEL COMPONENT: ELECTRICAL LINE - PT₂₇

GENERAL DESCRIPTION: Electrical conduit on the right-hand forward section of T₂₈.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000062B

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at:	X _T	360.733	7.215
	Y _T	11.549	0.231
	Z _T	412.474	8.250
Trailing edge at:	X _T	876.273	17.525
	Y _T	226.114	4.522
	Z _T	646.774	12.935

Centerline of conduit located radially at $\phi = 47.5$ deg.

Table III (Cont'd)

MODEL COMPONENT: RUDDER - R₅

GENERAL DESCRIPTION: Configuration 140C orbiter rudder (identical to configuration A/B rudder)

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000146B, -000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>100.15</u>	<u>0.004</u>
Span (equivalent) - In.	<u>201.00</u>	<u>4.020</u>
Inb'd equivalent chord - In.	<u>91.585</u>	<u>1.832</u>
Outb'd equivalent chord - In.	<u>50.833</u>	<u>1.017</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u> </u>	<u> </u>
Tailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline (Product of area & \bar{c})	<u>34.83</u>	<u>34.83</u>
Area Moment , Ft ³	<u>610.92</u>	<u>0.0049</u>
Mean Aerodynamic Chord, In.	<u>73.2</u>	<u>1.464</u>

Table III (Cont'd)

MODEL COMPONENT : BOOSTER SOLID ROCKET MOTOR - S₂₂

GENERAL DESCRIPTION : The BSRM is an external propulsion system which is jettisoned and recoverable after burnout. The BSRM's can be refurbished and reused after recovery.

MODEL SCALE: 0.020

DRAWING NUMBER: VC77-000002C, VC70-000002A, VC72-000002C

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length - In.	<u>1789.60</u>	<u>35.792</u>
Max Width (Tank Dia.), In.	<u>146.00</u>	<u>2.92</u>
Max Depth (Aft Shroud Dia.), In.	<u>208.20</u>	<u>4.164</u>
Finess Ratio	<u>8.596</u>	<u>8.596</u>
Area - Ft ²	<u></u>	<u></u>
Max. Cross-Sectional	<u>236.423</u>	<u>0.095</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>
WP of BSRM Centerline (X _T)	400.00	8.00
FS of BSRM nose (X _T)	743.0	14.86
BP of BSRM centerline (X _T)	250.5	5.010

Table III (Cont'd)

MODEL COMPONENT : EXTERNAL TANK - T₂₈

GENERAL DESCRIPTION : _____

NOTE: Dimensions are to tank structural OML, TPS not included).

MODEL SCALE: 0.020

DRAWING NUMBER: VL72-000143D, VL78-000063

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	<u>1844.275</u>	<u>36.886</u>
Max Worm Dia. - In.	<u>331.00</u>	<u>6.62</u>
Max Depth	<u> </u>	<u> </u>
Fineness Ratio	<u>5.687</u>	<u>5.687</u>
Area - Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>594.678</u>	<u>0.239</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table III (Cont'd)

MODEL COMPONENT: VERTICAL - V₈GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail(identical to configuration 140A/B vertical tail).MODEL SCALE: 0.020DRAWING NUMBER: VL70-000140C, -000146B

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - Ft ²		
Planform	<u>413.253</u>	<u>0.165</u>
Span (Theo) - In.	<u>315.72</u>	<u>6.314</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.00</u>	<u>45.00</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
0.25 Element Line	<u>41.13</u>	<u>41.13</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>5.370</u>
Tip (Theo) WP	<u>108.47</u>	<u>2.169</u>
MAC	<u>199.81</u>	<u>3.996</u>
Fus. Sta. of .25 MAC	<u>1463.35</u>	<u>29.267</u>
W.P. of .25 MAC	<u>635.52</u>	<u>12.710</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.0</u>
Trailing Wedge Angle - Deg.	<u>14.92</u>	<u>14.92</u>
Leading Edge Radius	<u>2.00</u>	<u>0.04</u>
Void Area	<u>13.17</u>	<u>0.0053</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

Table III (Conl'd)

MODEL COMPONENT: WING-W₁₁₆GENERAL DESCRIPTION: NOTE: Identical to W₁₁₄ except airfoil thickness. Dihedral angle is along trailing edge of wing. Geometric twist = 0.

MODEL SCALE: 0.020

TEST NO.

DWG. NO. VL70-000140A, -000200DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.) Ft^2

Planform

2690.00

1.076

Span (Theo In.

936.68

18.734

Aspect Ratio

2.265

2.265

Rate of Taper

1.177

1.177

Taper Ratio

0.200

0.200

Dihedral Angle, degrees

3.500

3.500

Incidence Angle, degrees

0.500

0.500

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

45.000

45.000

Trailing Edge

- 10.056

- 10.056

0.25 Element Line

35.209

35.209

Chords:

Root (Theo) B.P.O.O.

689.24

13.785

Tip, (Theo) B.P.

137.85

2.757

MAC

474.81

9.496

Fus. Sta. of .25 MAC

1136.85

22.737

W.P. of .25 MAC

290.58

5.812

B.L. of .25 MAC

182.13

3.643

EXPOSED DATAArea (Theo) Ft^2

1751.50

0.701

Span, (Theo) In. BP108

720.68

14.4136

Aspect Ratio

2.059

2.059

Taper Ratio

0.245

0.245

Chords

Root BP108

562.09

11.242

Tip $1.00 \frac{b}{2}$

137.85

2.757

MAC

392.83

7.856

Fus. Sta. of .25 MAC

1185.98

23.720

W.P. of .25 MAC

294.30

5.886

B.L. of .25 MAC

251.77

5.035

Airfoil Section (Rockwell Mod NA...
XXXX-64)Root $\frac{b}{2}$ =

0.113

0.113

Tip $\frac{b}{2}$ =

0.120

0.120

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft^2

113.18

0.045

Leading Edge Intersects Fus M. L. @ Sta

500.00

10.00

Leading Edge Intersects Wing @ Sta

1024.00

20.480

TABLE IV. - PRESSURE TAP NUMBER ASSIGNMENTS

ORBITER FUSELAGE

X _o STA	Z _o W.L	Tap LH	No. RH	X _o STA	Z _o WL	Tap LH	No RH	X _o STA	Z _o WL	Tap LH	No RH
7.60	7.08	—	2	17.90	7.54	21	22	27.62	6.72	75	76
8.24	7.08	—	6	18.30	7.54	25	26	28.02	6.72	79	80
7.60	7.26	—	4	17.90	7.76	23	24	27.62	6.98	77	73
8.24	7.26	—	8	18.30	7.76	27	28	28.02	6.98	81	82
15.08	7.54	—	12	19.70	7.54	39	40	26.84	6.72	59	60
15.48	7.54	17	18	20.10	7.54	43	44	27.08	6.72	63	64
15.08	7.76	13	14	19.70	7.76	41	42	26.84	6.86	61	62
15.48	7.76	19	20	20.10	7.76	45	46	27.08	6.86	65	66
18.48	7.02	29	30	22.36	7.54	47	48	27.40	6.18	67	68
18.90	7.02	35	36	22.76	7.54	53	54	27.54	6.18	71	72
18.48	7.24	31	32	22.36	7.76	49	50	27.40	6.28	69	70
18.90	7.24	37	38	22.76	7.76	55	56	27.54	6.28	73	74

ORB. FUS. RADIAL LOCATIONS

φ \ X _o	11.40	15.20	18.84	22.50	26.14
120	10	16	34	52	58
240	9	15	33	51	57

ORB. BODY FLAP - UPPER SURFACE

X _o	Y _o (B.L.)				
STA	-1.89	-0.82	0.0	0.82	1.89
31.10	700	704	382	708	383
31.80	702	706	384	710	385

ORB. BODY FLAP - LWR SURFACE

X _o	Y _o (B.L.)				
STA	-1.89	-0.82	0.0	0.82	1.89
31.10	701	705	386	709	387
31.80	703	707	388	711	389

TABLE IV. - Concluded.

ORBITER BASE

Y _O BL	Z _O WL	Tap No.
-2.30	6.59	379
-.438	6.10	717
0.00	6.59	380
.438	6.10	718
2.30	6.59	381
-2.30	7.15	716
0.00	7.15	720
2.30	7.15	719
-2.30	8.00	374

Y _O BL	Z _O WL	Tap No.
0.00	7.72	376
2.30	8.00	378
-2.09	8.38	715
-.87	8.21	375
.87	8.21	377
2.09	8.38	721
-2.45	8.88	372
-1.73	8.70	714
1.73	8.70	722

Y _O BL	Z _O WL	Tap No.
2.45	8.88	373
-1.77	9.18	713
1.77	9.18	723
-1.00	10.0	371
1.00	10.0	370
1.9	9.92	724

EXTERNAL TANK

X _T STA	φ DEG.							
	0	45	90	135	180	225	270	315
19.0		800		801		802		803
38.0	518		521		804		515	
41.16	805		806		807		808	

ET BASE

R/ ROD	φ							
	0	45	90	135	180	225	270	315
0	541							
0.45							809	
.635	810		811		812		813	
.840	814	815	816	817	818		819	820
.895	821		822	823	824			825
.946	826		827	828	829	830		831
1.00				832		833		834

SRB (Inside Skirt)

X _P STA	φ			
	0	90	180	270
380	841	842	843	844

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

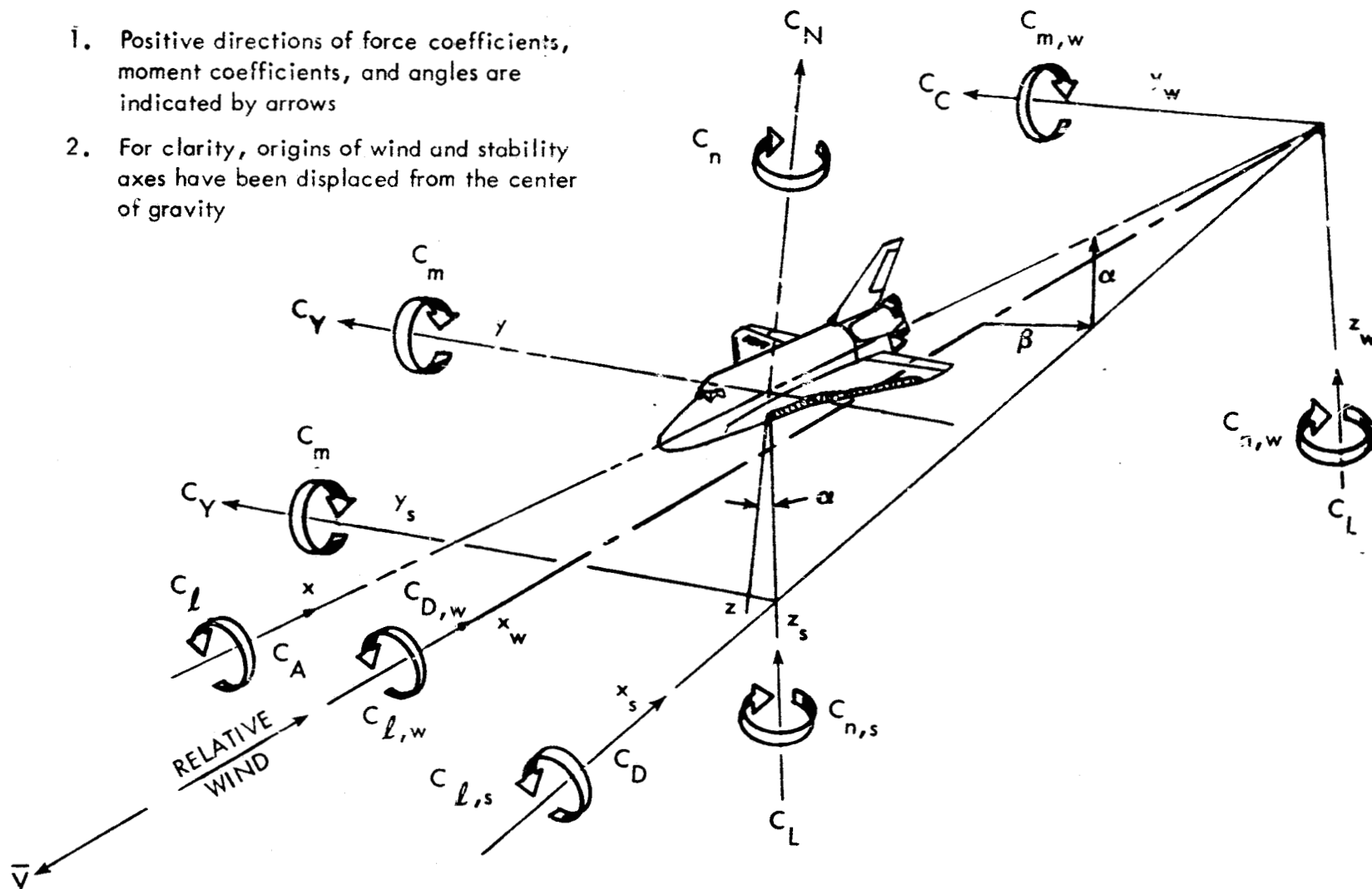


Figure 1. - Axis systems.

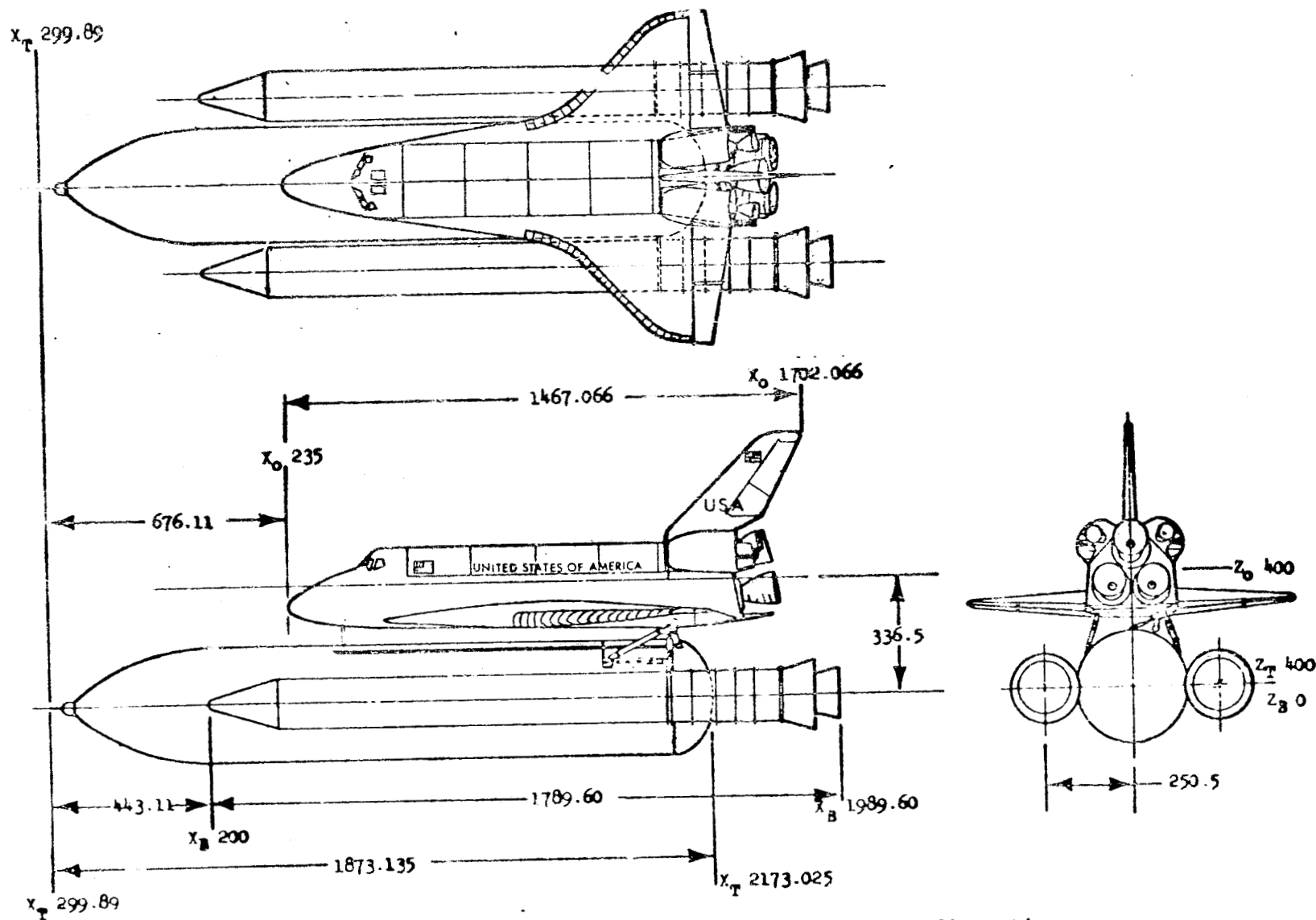
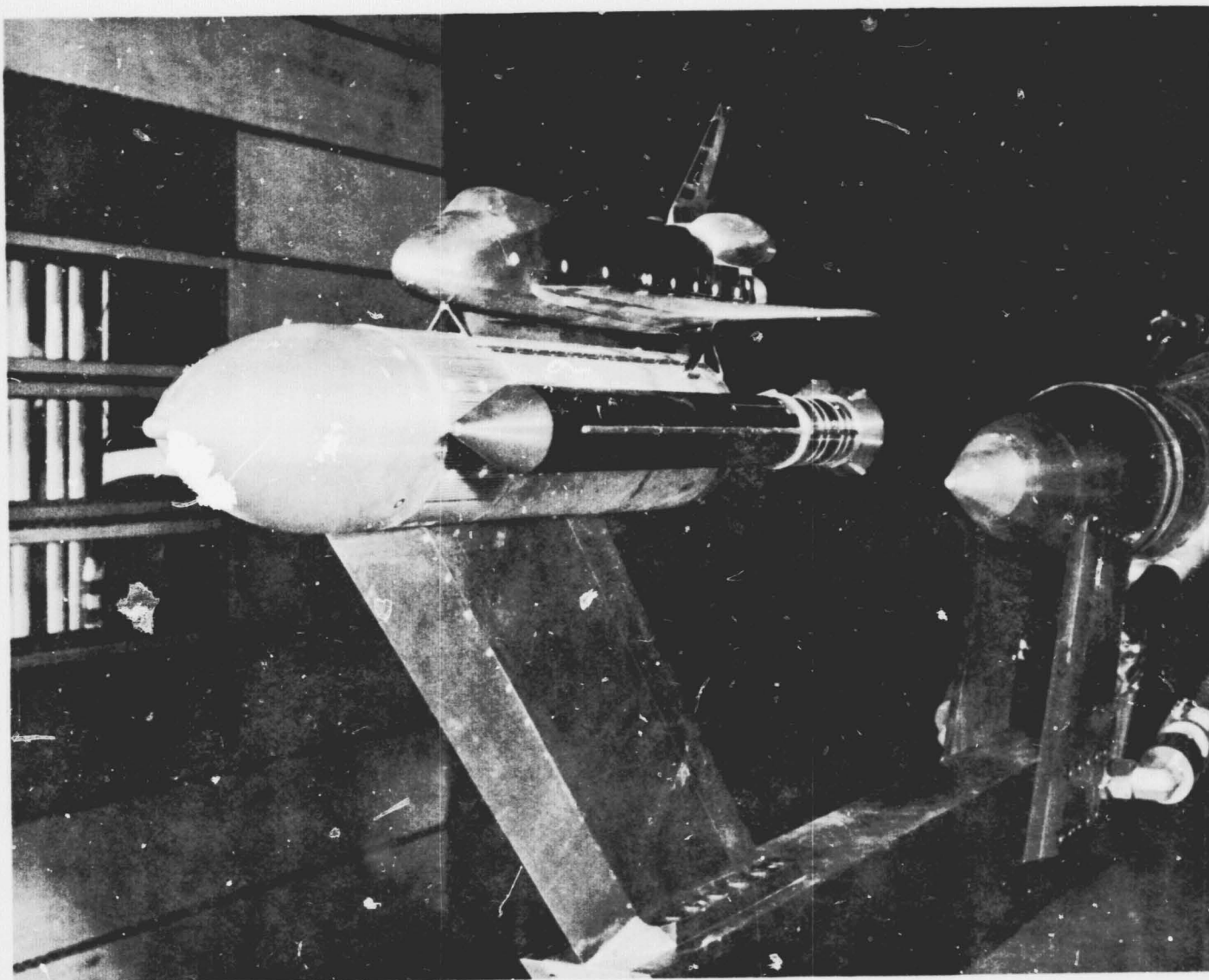


Figure 2. - Integrated space shuttle vehicle launch configuration.

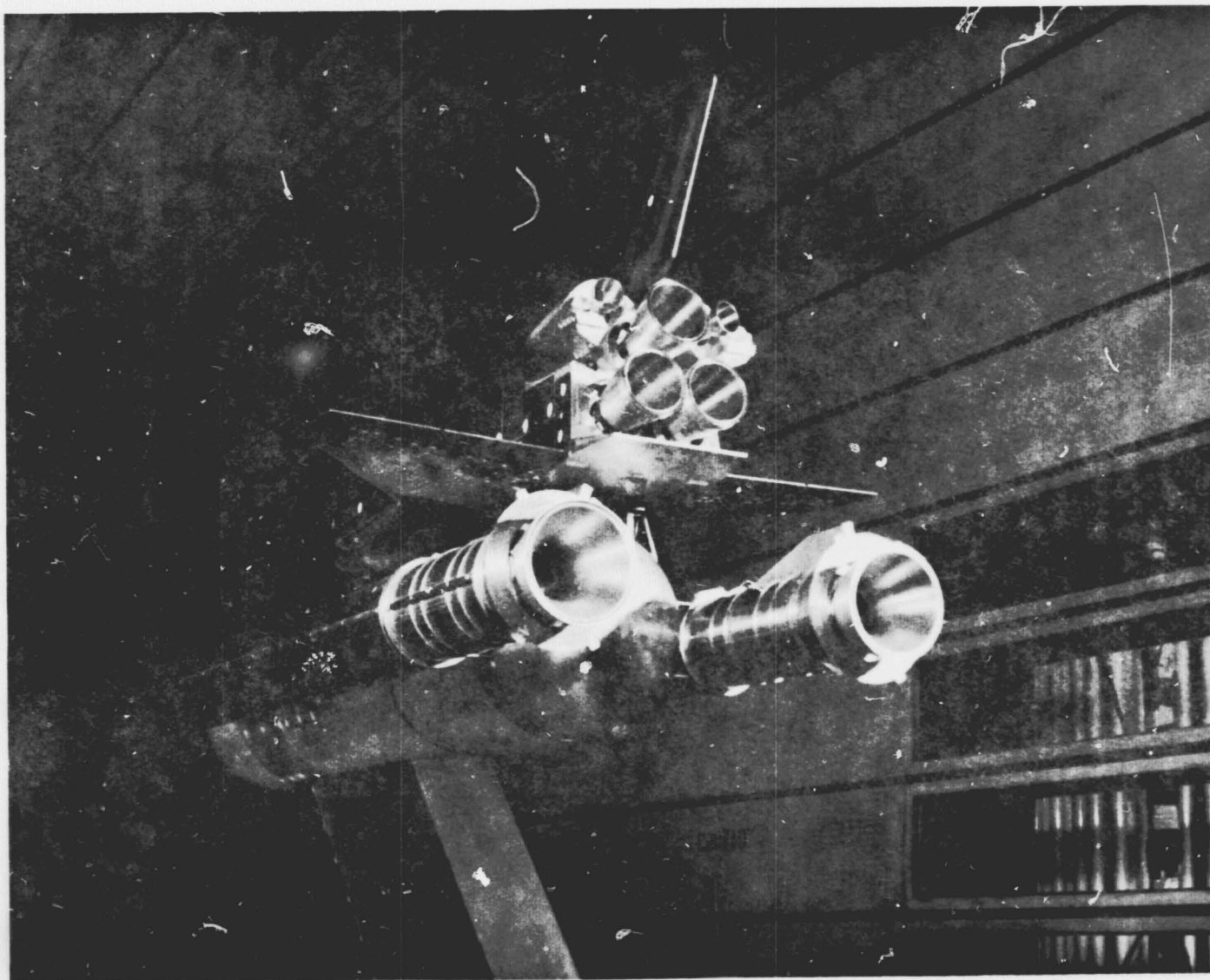


a. Model 88-OTS Installation, Front View

Figure 3. - Model photographs.

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OF POOR QUALITY

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b. Model 88-OTS Installation, Rear View

Figure 3. - Concluded.

APPENDIX
TABULATED SOURCE DATA

Tabulations of plotted data are available on request from
Data Management Services

DATE 23 JUL 76

LABULATED SOURCE DATA - 1A80

PAGE 745

ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4001) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.013 BETA (1) = -.019 MACH = .59860 RN/L = 3.3812 PO = 2110.5 P = 1656.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0516
45.000 -.1430
90.000 -.1208
135.000 .0334
180.000 .0000
225.000 .0358
270.000 -.1215
315.000 -.1526

ALPHA (2) = -.314 BETA (1) = -4.034 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0495
45.000 -.0052
90.000 -.1003
135.000 .0003
180.000 .0000
225.000 -.0526
270.000 -.1213
315.000 -.2240

ALPHA (2) = -.340 BETA (2) = -.019 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0453
45.000 -.1074
90.000 -.1027
135.000 -.0193
180.000 .0000
225.000 -.0133

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4601)

ALPHA (2) = -.340 BETA (2) = -.019

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1061
315.000 -.1128

ALPHA (2) = -.459 BETA (3) = 3.697 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0466
45.000 -.2108
90.000 -.1211
135.000 -.0439
180.000 .0000
225.000 .0112
270.000 -.0973
315.000 -.0069

ALPHA (3) = 4.039 BETA (1) = -.019 MACH = .59860 RN/L = 3.3874 PO = 2109.8 P = 1655.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0294
45.000 -.0509
90.000 -.0795
135.000 -.0676
180.000 .0000
225.000 -.0642
270.000 -.0973
315.000 -.0533

DATE 23 JUL 76

TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=N++ ORB=N) ET

(RE4G02) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.901 BETA (1) = -.012 MACH = .90550 RN/L = 4.2328 PO = 2108.4 P = 1239.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0371
45.000 -.1305
90.000 .0047
135.000 .0875
180.000 .0000
225.000 .0965
270.000 -.0037
315.000 -.1435

ALPHA (2) = -.347 BETA (1) = -4.025 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0241
45.000 -.0234
90.000 -.0043
135.000 -.0083
180.000 .0000
225.000 .0217
270.000 -.0452
315.000 -.1276

ALPHA (2) = -.380 BETA (2) = -.009 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0445
45.000 -.0747
90.000 -.0047
135.000 .0078
180.000 .0000
225.000 .0222

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4G02)

ALPHA (2) = -.380 BETA (2) = -.009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0243
315.000 -.0857

ALPHA (2) = -.456 BETA (3) = 4.003 MACH = .96060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0189
45.000 -.1133
90.000 -.0495
135.000 .0167
180.000 .0000
225.000 -.0052
270.000 -.0275
315.000 -.0366

ALPHA (3) = 3.977 BETA (1) = -.009 MACH = .89810 RN/L = 4.2116 PO = 2105.5 P = 1247.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0268
45.000 -.0165
90.000 -.1023
135.000 -.0644
180.000 .0000
225.000 -.0614
270.000 -.1160
315.000 -.0256

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 CTS(SRB=N++ ORB=N) ET

(RE4G03) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.920 BETA (1) = -.003 MACH = 1.0986 RN/L = 4.3008 PO = 2109.8 P = 989.84

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2399
45.000 .1191
90.000 .2053
135.000 .3026
180.000 .0000
225.000 .2975
270.000 .2026
315.000 .1008

ALPHA (2) = -.621 BETA (1) = -4.006 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2295
45.000 .1814
90.000 .2420
135.000 .1256
180.000 .0000
225.000 .2454
270.000 .1445
315.000 .1890

ALPHA (2) = -.641 BETA (2) = .000 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2258
45.000 .2045
90.000 .2265
135.000 .2206
180.000 .0000
225.000 .2142

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4603)

ALPHA (2) = -.641 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2196
315.000 .1871

ALPHA (2) = -.492 BETA (3) = 4.009 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2245
45.000 .1940
90.000 .1278
135.000 .2791
180.000 .0000
225.000 .1163
270.000 .2199
315.000 .1666

ALPHA (3) = 3.944 BETA (1) = -.003 MACH = 1.1088 RN/L = 4.3102 PO = 2108.4 P = 976.70

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1924
45.000 .2538
90.000 .1458
135.000 .0689
180.000 .0000
225.000 .0662
270.000 .1322
315.000 .2432

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4G04) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -4.165 BETA (1) = .000 MACH = 1.2595 RN/L = 4.4972 PO = 2140.2 P = 815.83

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0113
45.000 .2505
90.000 .0017
135.000 .3452
180.000 .0000
225.000 .3248
270.000 -.0112
315.000 .2311

ALPHA (2) = -.495 BETA (1) = -4.006 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1909
45.000 .2926
90.000 .1244
135.000 .1636
180.000 .0000
225.000 .2045
270.000 -.0255
315.000 .2446

ALPHA (2) = -.528 BETA (2) = .000 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1424
45.000 .3330
90.000 -.0010
135.000 .3087
180.000 .0000
225.000 .2956

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4G04)

ALPHA (2) = -.528 BETA (2) = .000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0179
315.000 .3257

ALPHA (2) = -.555 BETA (3) = 4.006 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1806
45.000 .2305
90.000 -.0453
135.000 .2657
180.000 .0000
225.000 .1703
270.000 .0620
315.000 .2809

ALPHA (3) = 3.881 BETA (1) = .006 MACH = 1.2464 RN/L = 4.4257 PO = 2113.3 P = 819.82

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2623
45.000 .3372
90.000 .0781
135.000 .1575
180.000 .0000
225.000 .1426
270.000 .0376
315.000 .3282

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4005) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.950 BETA (1) = -.003 MACH = 1.4026 RN/L = 4.3103 PO = 2124.6 P = 665.23

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0095
 45.000 .2839
 90.000 -.0306
 135.000 .3013
 180.000 .0000
 225.000 .2565
 270.000 -.0634
 315.000 .2776

ALPHA (2) = -.436 BETA (1) = -4.009 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0117
 45.000 .3857
 90.000 .0247
 135.000 .2435
 180.000 .0000
 225.000 .1448
 270.000 -.1149
 315.000 .1121

ALPHA (2) = -.482 BETA (2) = -.003 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0153
 45.000 .3245
 90.000 -.0512
 135.000 .3209
 180.000 .0000
 225.000 .2963

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET

(RE4G05)

ALPHA (2) = -.482 BETA (2) = -.003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0909
315.000 .3237

ALPHA (2) = -.505 BETA (3) = 4.009 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0177
45.000 .1351
90.000 -.0926
135.000 .1699
180.000 .0000
225.000 .2416
270.000 -.0477
315.000 .3818

ALPHA (3) = 3.881 BETA (1) = -.006 MACH = 1.4020 RN/L = 4.3020 PO = 2122.5 P = 665.10

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0355
45.000 .2990
90.000 -.1009
135.000 .2503
180.000 .0000
225.000 .2128
270.000 -.1508
315.000 .2936

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(REV006) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.848 BETA (1) = -.019 MACH = .59810 RN/L = 3.3852 PO = 2109.1 P = 1656.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0554
45.000 -.1409
90.000 -.1251
135.000 .0368
180.000 .0000
225.000 .0392
270.000 -.1283
315.000 -.1480

ALPHA (2) = -.350 BETA (1) = -4.038 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0471
45.000 -.0066
90.000 -.0955
135.000 -.0014
180.000 .0000
225.000 -.0492
270.000 -.1213
315.000 -.2178

ALPHA (2) = -.314 BETA (2) = -.022 MACH = .59800 RN/L = 3.3643 PO = 2108.4 P = 1655.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0454
45.000 -.1045
90.000 -.0991
135.000 -.0153
180.000 .0000
225.000 -.0150

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4G06)

ALPHA (2) = -.314 BETA (2) = -.022

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1069
315.000 -.1055

ALPHA (2) = -.396 BETA (3) = 3.997 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0591
45.000 -.2168
90.000 -.1316
135.000 -.0478
180.000 .0000
225.000 -.0003
270.000 -.1044
315.000 -.0137

ALPHA (3) = 3.970 BETA (1) = -.022 MACH = .59820 RN/L = 3.3879 PO = 2107.7 P = 1654.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CF

XT/LT .3362 .8506

PHI
.000 -.0294
45.000 -.0492
90.000 -.0813
135.000 -.0704
180.000 .0000
225.000 -.0687
270.000 -.1024
315.000 -.0554

DATE 23 JUL 75

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4G07) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.930 BETA (1) = -.009 MACH = .89330 RN/L = 4.2036 PO = 2101.3 P = 1243.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0281
45.000 -.1423
90.000 -.0036
135.000 .0834
180.000 .0000
225.000 .0935
270.000 -.0179
315.000 -.1544

ALPHA (2) = -.376 BETA (1) = -4.028 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0300
45.000 -.0261
90.000 .0019
135.000 -.0084
180.000 .0000
225.000 .0246
270.000 -.0394
315.000 -.1202

ALPHA (2) = -.330 BETA (2) = -.012 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0406
45.000 -.0781
90.000 -.0079
135.000 .0031
180.000 .0000
225.000 .0153

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 758

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4607)

ALPHA (2) = -.330 BETA (2) = -.012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0307
315.000 -.0897

ALPHA (2) = -.330 BETA (3) = 4.003 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0236
45.000 -.1045
90.000 -.0431
135.000 .0238
180.000 .0000
225.000 .0027
270.000 -.0200
315.000 -.0278

ALPHA (3) = 3.927 BETA (1) = -.016 MACH = .90100 RN/L = 4.2085 PO = 2101.3 P = 1241.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0282
45.000 -.0124
90.000 -.0983
135.000 -.0674
180.000 .0000
225.000 -.0566
270.000 -.1146
315.000 -.0222

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4008) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.907 BETA (1) = .000 MACH = 1.0989 RN/L = 4.3130 PO = 2107.0 P = 988.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2400
45.000 .1177
90.000 .2040
135.000 .3048
180.000 .0000
225.000 .2992
270.000 .2024
315.000 .1016

ALPHA (2) = -.515 BETA (1) = -4.003 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2285
45.000 .1807
90.000 .2422
135.000 .1228
180.000 .0000
225.000 .2461
270.000 .1441
315.000 .1861

ALPHA (2) = -.525 BETA (2) = .003 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2246
45.000 .2047
90.000 .2260
135.000 .2187
180.000 .0000
225.000 .2108

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 760

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4008)

ALPHA (2) = -.525 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2190
315.000 .1858

ALPHA (2) = -.426 BETA (3) = 4.012 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2228
45.000 .1943
90.000 .1294
135.000 .2782
180.000 .0000
225.000 .1144
270.000 .2194
315.000 .1681

ALPHA (3) = 3.881 BETA (1) = .006 MACH = 1.1017 RN/L = 4.3151 PO = 2105.5 P = 984.01

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1936
45.000 .2460
90.000 .1519
135.000 .0744
180.000 .0000
225.000 .0654
270.000 .1397
315.000 .2363

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4G09) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.897 BETA (1) = .006 MACH = 1.2489 RN/L = 4.4001 PO = 2111.9 P = 816.48

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0355
45.000 .2404
90.000 .0055
135.000 .3343
180.000 .0000
225.000 .3195
270.000 -.0116
315.000 .2248

ALPHA (2) = -.482 BETA (1) = -4.006 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1857
45.000 .2903
90.000 .1191
135.000 .1601
180.000 .0000
225.000 .2046
270.000 -.0303
315.000 .2426

ALPHA (2) = -.519 BETA (2) = .003 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1467
45.000 .3286
90.000 .0010
135.000 .3053
180.000 .0000
225.000 .2935

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 762

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4G09)

ALPHA (2) = -.519 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0190

315.000 .3209

ALPHA (2) = -.462 BETA (3) = 4.009 MACH = 1.2477 RN/L = 4.3953 PO = 2111.9 P = 817.80

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1948

45.000 .2358

90.000 -.0245

135.000 .2703

180.000 .0000

225.000 .1593

270.000 .0922

315.000 .2711

ALPHA (3) = 3.854 BETA (1) = .006 MACH = 1.2493 RN/L = 4.3962 PO = 2111.9 P = 816.04

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2672

45.000 .3403

90.000 .0776

135.000 .1572

180.000 .0000

225.000 .1445

270.000 .0376

315.000 .3296

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 763

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4610) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.904 BETA (1) = -.006 MACH = 1.4001 RN/L = 4.2924 PO = 2119.7 P = 665.99

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0074

45.000 .2835

90.000 -.0327

135.000 .2991

180.000 .0200

225.000 .2516

270.000 -.0669

315.000 .2759

ALPHA (2) = -.406 BETA (1) = -4.009 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0108

45.000 .3857

90.000 .0203

135.000 .2409

180.000 .0000

225.000 .1414

270.000 -.1207

315.000 .1071

ALPHA (2) = -.370 BETA (2) = .000 MACH = 1.4020 RN/L = 4.2345 PO = 2120.9 P = 664.59

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0149

45.000 .3263

90.000 -.0566

135.000 .3183

180.000 .0000

225.000 .2986

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4G10)

ALPHA (2) = -.370 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0940

315.000 .3192

ALPHA (2) = -.453 BETA (3) = 4.012 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0164

45.000 .1319

90.000 -.0971

135.000 .1711

180.000 .0000

225.000 .2381

270.000 -.0497

315.000 .3829

ALPHA (3) = 3.944 BETA (1) = -.006 MACH = 1.3972 RN/L = 4.2925 PO = 2121.1 P = 669.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0325

45.000 .2979

90.000 -.1090

135.000 .2418

180.000 .0000

225.000 .2051

270.000 -.1579

315.000 .2899

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+) ET

(RE4G11) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.957 BETA (1) = -.016 MACH = .59560 RN/L = 3.3845 PO = 2105.5 P = 1656.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0625
45.000 -.1486
90.000 -.1269
135.000 .0304
180.000 .0000
225.000 .0318
270.000 -.1275
315.000 -.1576

ALPHA (2) = -.337 BETA (1) = -4.041 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0490
45.000 -.0075
90.000 -.1049
135.000 -.0020
180.000 .0000
225.000 -.0465
270.000 -.1239
315.000 -.2227

ALPHA (2) = -.383 BETA (2) = -.022 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1652.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0432
45.000 -.1054
90.000 -.1041
135.000 -.0159
180.000 .0000
225.000 -.0098

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS.SRB=N ORB=N+) ET

(R24G11)

ALPHA (2) = -.383 BETA (2) = -.022

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1068
315.000 -.1061

ALPHA (2) = -.400 BETA (3) = 3.997 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0454
45.000 -.2159
90.000 -.1206
135.000 -.0369
180.000 .0000
225.000 .0130
270.000 -.0912
315.000 -.0013

ALPHA (3) = 4.125 BETA (1) = -.025 MACH = .59330 RN/L = 3.4956 PO = 2106.2 P = 1652.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0246
45.000 -.0437
90.000 -.0744
135.000 -.0618
180.000 .0000
225.000 -.0618
270.000 -.0976
315.000 -.0509

DATE 23 JUL 76

TABULATED SOURCE DATA - IABO

PAGE 767

ARC11-023IABO OTS(SRB=N ORB=N+) ET

(RE4G12) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.062 BETA (1) = -.012 MACH = .89970 RN/L = 4.2040 PO = 2099.9 P = 1242.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0274
45.000 -.1441
90.000 -.0066
135.000 .0869
180.000 .0000
225.000 .0923
270.000 -.0171
315.000 -.1576

ALPHA (2) = -.383 BETA (1) = -4.028 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0236
45.000 -.0270
90.000 -.0068
135.000 -.0114
180.000 .0000
225.000 .0171
270.000 -.0471
315.000 -.1308

ALPHA (2) = -.383 BETA (2) = -.016 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0427
45.000 -.0758
90.000 -.0034
135.000 .0078
180.000 .0000
225.000 .0176

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET

(RE4G12)

ALPHA (2) = -.383 BETA (2) = -.016

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0254
315.000 -.0863

ALPHA (2) = -.453 BETA (3) = 4.000 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0197
45.000 -.1052
90.000 -.0427
135.000 .0233
180.000 .0000
225.000 .0013
270.000 -.0188
315.000 -.0342

ALPHA (3) = 3.947 BETA (1) = -.012 MACH = .90020 RN/L = 4.1982 PO = 2099.2 P = 1240.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0278
45.000 -.0120
90.000 -.1017
135.000 -.0645
180.000 .0000
225.000 -.0565
270.000 -.1156
315.000 -.0227

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-023IAB0 OTS(SRB=N ORB=N+) ET

(RE4G13) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.950 BETA (1) = .006 MACH = 1.0974 RN/L = 4.3157 PO = 2105.5 P = 989.31

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2388
45.000 .1158
90.000 .2005
135.000 .3029
180.000 .0000
225.000 .2978
270.000 .2015
315.000 .0984

ALPHA (2) = -.509 BETA (1) = -4.066 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2281
45.000 .1795
90.000 .2424
135.000 .1251
180.000 .0000
225.000 .2460
270.000 .1479
315.000 .1866

ALPHA (2) = -.552 BETA (2) = -.056 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2252
45.000 .2024
90.000 .2255
135.000 .2176
180.000 .0000
225.000 .2109

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET

(RE4013)

ALPHA (2) = -.552 BETA (2) = -.056

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2173
315.000 .1852

ALPHA (2) = -.486 BETA (3) = 3.950 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2226
45.000 .1922
90.000 .1332
135.000 .2786
180.000 .0000
225.000 .1161
270.000 .2184
315.000 .1676

ALPHA (3) = 4.029 BETA (1) = -.069 MACH = 1.030 RN/L = 4.3205 PO = 2104.8 P = 982.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1918
45.000 .2461
90.000 .1495
135.000 .0752
180.000 .0000
225.000 .0689
270.000 .1340
315.000 .2378

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+) ET

(RE4614) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.963 BETA (1) = .006 MACH = 1.2512 RN/L = 4.3841 PO = 2109.1 P = 812.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0324
45.000 .2416
90.000 .0039
135.000 .3344
180.000 .0000
225.000 .3210
270.000 -.0148
315.000 .2251

ALPHA (2) = -.492 BETA (1) = -4.006 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1908
45.000 .2916
90.000 .1171
135.000 .1626
180.000 .0000
225.000 .2054
270.000 -.0283
315.000 .2418

ALPHA (2) = -.466 BETA (2) = .003 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1531
45.000 .3292
90.000 -.0059
135.000 .3064
180.000 .0000
225.000 .2912

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+) ET

(RE4314)

ALPHA (2) = -.466 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0266
315.000 .3213

ALPHA (2) = -.522 BETA (3) = 4.009 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1882
45.000 .2297
90.000 -.0073
135.000 .2669
180.000 .0000
225.000 .1580
270.000 .0711
315.000 .2723

ALPHA (3) = 3.996 BETA (1) = .000 MACH = 1.2453 RN/L = 4.3815 PO = 2109.8 P = 819.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2601
45.000 .3361
90.000 .0761
135.000 .1490
180.000 .0000
225.000 .1394
270.000 .0283
315.000 .3249

1

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80
 ARC11-0231A80 OTS(SRB=N ORB=N+) ET

PAGE 773
 (RE4G15) (14 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-08 = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.910 BETA (1) = -.006 MACH = 1.4040 RN/L = 4.2694 PC = 2117.6 P = 661.67

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506
 PHI
 .000 .0110
 45.000 .2847
 90.000 -.0342
 135.000 .3022
 180.000 .0000
 225.000 .2555
 270.000 -.0681
 315.000 .2786

ALPHA (2) = -.409 BETA (1) = -4.009 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506
 PHI
 .000 .0095
 45.000 .3852
 90.000 .0230
 135.000 .2417
 180.000 .0000
 225.000 .1430
 270.000 -.1205
 315.000 .1074

ALPHA (2) = -.446 BETA (2) = .000 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506
 PHI
 .000 .0133
 45.000 .3246
 90.000 -.0623
 135.000 .3202
 180.000 .0000
 225.000 .2953

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET

(RE4G15)

ALPHA (2) = -.446 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0992

315.000 .3221

ALPHA (2) = -.509 BETA (3) = 4.009 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0170

45.000 .1329

90.000 -.0919

135.000 .1748

180.000 .0000

225.000 .2334

270.000 -.0612

315.000 .3788

ALPHA (3) = 3.848 BETA (1) = -.006 MACH = 1.4000 RN/L = 4.2776 PO = 2121.1 P = 666.55

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0343

45.000 .3034

90.000 -.1139

135.000 .2494

180.000 .0000

225.000 .2117

270.000 -.1645

315.000 .2914

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4G16) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.986 BETA (1) = -.012 MACH = .90160 RN/L = 4.2050 PO = 2099.2 P = 1239.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0302
45.000 -.1408
90.000 -.0009
135.000 .0891
180.000 .0000
225.000 .0943
270.000 -.0134
315.000 -.1535

ALPHA (2) = -.350 BETA (1) = -4.031 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1236.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0274
45.000 -.0225
90.000 -.0033
135.000 -.0055
180.000 .0000
225.000 .0225
270.000 -.0399
315.000 -.1249

ALPHA (2) = -.301 BETA (2) = -.016 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1236.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0470
45.000 -.0702
90.000 .0029
135.000 .0083
180.000 .0000
225.000 .0211

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4G16)

ALPHA (2) = -.301 BETA (2) = -.016

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0180
315.000 -.0798

ALPHA (2) = -.317 BETA (3) = 4.000 MACH = .90357 RN/L = 4.2104 PO = 2096.7 P = 1236.1

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0234
45.000 -.1026
90.000 -.0410
135.000 .0268
180.000 .0000
225.000 .0035
270.000 -.0182
315.000 -.0296

ALPHA (3) = 3.947 BETA (1) = -.019 MACH = .90070 RN/L = 4.2030 PO = 2098.5 P = 1239.8

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0266
45.000 -.0124
90.000 -.0985
135.000 -.0653
180.000 .0000
225.000 -.0588
270.000 -.1130
315.000 -.0237

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4G17) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.020 BETA (1) = -.069 MACH = 1.0966 RN/L = 4.3161 PO = 2104.8 P = 990.02

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2383
45.000 .1141
90.000 .2052
135.000 .3021
180.000 .0000
225.000 .2977
270.000 .2030
315.000 .0964

ALPHA (2) = -.479 BETA (1) = -4.069 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2282
45.000 .1819
90.000 .2387
135.000 .1221
180.000 .0000
225.000 .2469
270.000 .1439
315.000 .1856

ALPHA (2) = -.489 BETA (2) = -.056 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2253
45.000 .2032
90.000 .2263
135.000 .2160
180.000 .0000
225.000 .2093

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4G17)

ALPHA (2) = -.489 BETA (2) = -.056

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2210
315.000 .1846

ALPHA (2) = -.486 BETA (3) = 3.947 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2225
45.000 .1948
90.000 .1264
135.000 .2801
180.000 .0000
225.000 .1134
270.000 .2167
315.000 .1679

ALPHA (3) = 3.983 BETA (1) = -.063 MACH = 1.1056 RN/L = 4.3164 PO = 2104.1 P = 978.63

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1953
45.000 .2490
90.000 .1565
135.000 .0796
180.000 .0000
225.000 .0705
270.000 .1406
315.000 .2402

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4618) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .000 MACH = 1.2490 RN/L = 4.3771 PO = 2108.4 P = 815.07

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0394
45.000 .2377
90.000 .0143
135.000 .3333
180.000 .0000
225.000 .3228
270.000 -.0037
315.000 .2244

ALPHA (2) = -.429 BETA (1) = -4.006 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1904
45.000 .2938
90.000 .1207
135.000 .1620
180.000 .0000
225.000 .2061
270.000 -.0235
315.000 .2387

ALPHA (2) = -.423 BETA (2) = .003 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1580
45.000 .3280
90.000 .0128
135.000 .3037
180.000 .0000
225.000 .2915

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4G18)

ALPHA (2) = -.423 BETA (2) = .003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3232 -.0057

ALPHA (2) = -.416 BETA (3) = 4.009 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1894
45.000 .2332
90.000 -.0263
135.000 .2630
180.000 .0000
225.000 .1541
270.000 .0919
315.000 .2714

ALPHA (3) = 3.993 BETA (1) = .003 MACH = 1.2456 RN/L = 4.3674 PO = 2108.4 P = 818.72

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2627
45.000 .3382
90.000 .0776
135.000 .1517
180.000 .0000
225.000 .1412
270.000 .0410
315.000 .3266

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4G19) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.848 BETA (1) = -.006 MACH = 1.4069 RN/L = 4.2698 PO = 2120.4 P = 659.90

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0094
45.000 .2872
90.000 -.0251
135.000 .3046
180.000 .0000
225.000 .2523
270.000 -.0647
315.000 .2793

ALPHA (2) = -.357 BETA (1) = -4.009 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0123
45.000 .3886
90.000 .0228
135.000 .2379
180.000 .0000
225.000 .1455
270.000 -.1168
315.000 .1040

ALPHA (2) = -.353 BETA (2) = .000 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0161
45.000 .3237
90.000 -.0468
135.000 .3191
180.000 .0000
225.000 .2939

DATE 23 JUL 76

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ARC11-0231A80 OTS(SRB=N ORB=N-) ET

(RE4619)

ALPHA (2) = -.363 BETA (2) = .000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	-.0874
315.000	.3191

ALPHA (2) = -.462 BETA (3) = 4.012 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0169
45.000	.1256
90.000	-.1000
135.000	.1684
180.000	.0000
225.000	.2376
270.000	-.0430
315.000	.3846

ALPHA (3) = 3.986 BETA (1) = -.003 MACH = 1.4018 RN/L = 4.2745 PO = 2122.5 P = 665.25

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0330
45.000	.3029
90.000	-.0932
135.000	.2459
180.000	.0000
225.000	.2090
270.000	-.1436
315.000	.2891

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G20) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.868 BETA (1) = -.016 MACH = .59200 RN/L = 3.3619 PO = 2105.5 P = 1661.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0638
45.000 -.1492
90.000 -.1280
135.000 .0307
180.000 .0000
225.000 .0290
270.000 -.1349
315.000 -.1583

ALPHA (2) = -.327 BETA (1) = -4.038 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0454
45.000 -.0068
90.000 -.0936
135.000 .0004
180.000 .0000
225.000 -.0448
270.000 -.1148
315.000 -.2194

ALPHA (2) = -.291 BETA (2) = -.022 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0493
45.000 -.1040
90.000 -.1044
135.000 -.0141
180.000 .0000
225.000 -.0124

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4020)

ALPHA (2) = -.291 BETA (2) = -.022

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1153
315.000 -.1102

ALPHA (2) = -.386 BETA (3) = 3.994 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0472
45.000 -.2148
90.000 -.1183
135.000 -.0383
180.000 .0000
225.000 .0181
270.000 -.0920
315.000 -.0018

ALPHA (3) = 4.016 BETA (1) = -.022 MACH = .60330 RN/L = 3.4092 PO = 2105.5 P = 1646.4

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0255
45.000 -.0454
90.000 -.0727
135.000 -.0690
180.000 .0000
225.000 -.0609
270.000 -.1021
315.000 -.0470

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G21) (14 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.977 BETA (1) = -.016 MACH = .90170 RN/L = 4.2042 PO = 2099.2 P = 1238.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0300
45.000 -.1396
90.000 -.0023
135.000 .0879
180.000 .0000
225.000 .0928
270.000 -.0138
315.000 -.1539

ALPHA (2) = -.327 BETA (1) = -4.028 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0266
45.000 -.0234
90.000 -.0058
135.000 -.0050
180.000 .0000
225.000 .0225
270.000 -.0416
315.000 -.1253

ALPHA (2) = -.317 BETA (2) = -.012 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0478
45.000 -.0677
90.000 .0035
135.000 .0084
180.000 .0000
225.000 .0194

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G21)

ALPHA (2) = -.317 BETA (2) = -.012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0176
315.000 -.0776

ALPHA (2) = -.350 BETA (3) = 4.000 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0192
45.000 -.1062
90.000 -.0443
135.000 .0216
180.000 .0000
225.000 .0029
270.000 -.0216
315.000 -.0329

ALPHA (3) = 3.977 BETA (1) = -.012 MACH = .90240 RN/L = 4.2041 PO = 2098.5 P = 1237.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0278
45.000 -.0118
90.000 -.0985
135.000 -.0668
180.000 .0000
225.000 -.0571
270.000 -.1127
315.000 -.0210

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G22) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = -.063 MACH = 1.0978 RN/L = 4.3175 PO = 2104.8 P = 988.46

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2392
45.000 .1170
90.000 .2046
135.000 .3024
180.000 .0000
225.000 .2973
270.000 .2032
315.000 .1002

ALPHA (2) = -.525 BETA (1) = -4.069 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2282
45.000 .1812
90.000 .2394
135.000 .1245
180.000 .0000
225.000 .2462
270.000 .1456
315.000 .1867

ALPHA (2) = -.439 BETA (2) = -.056 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2246
45.000 .2025
90.000 .2258
135.000 .2160
180.000 .0000
225.000 .2103

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4022)

ALPHA (2) = -.439 BETA (2) = -.056

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2189
315.000 .1846

ALPHA (2) = -.482 BETA (3) = 3.950 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2231
45.000 .1934
90.000 .1276
135.000 .2776
180.000 .0000
225.000 .1142
270.000 .2210
315.000 .1696

ALPHA (3) = 3.963 BETA (1) = -.063 MACH = 1.1046 RN/L = 4.3189 PO = 2104.1 P = 979.83

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1937
45.000 .2492
90.000 .1540
135.000 .0756
180.000 .0000
225.000 .0675
270.000 .1400
315.000 .2389

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G23) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-78 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.917 BETA (1) = .003 MACH = 1.2460 RN/L = 4.3726 PO = 2108.4 P = 818.30

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0400
45.000 .2357
90.000 .0080
135.000 .3322
180.000 .0000
225.000 .3202
270.000 -.0.01
315.000 .2215

ALPHA (2) = -.446 BETA (1) = -4.006 MACH = 1.2483 RN/L = 4.3668 PO = 2103.9 P = 816.03

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1864
45.000 .2930
90.000 .1179
135.000 .1592
180.000 .0000
225.000 .2084
270.000 -.0267
315.000 .2417

ALPHA (2) = -.456 BETA (2) = .003 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1577
45.000 .3318
90.000 .0020
135.000 .3053
180.000 .0000
225.000 .2948

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4023)

ALPHA (2) = -.456 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3237

ALPHA (2) = -.439 BETA (3) = 4.012 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000 .2315
90.000 -.0259
135.000 .2653
180.000 .0000
225.000 .1553
270.000 .0729
315.000 .2721

ALPHA (3) = 3.986 BETA (1) = .000 MACH = 1.2455 RN/L = 4.3668 PO = 2109.1 P = 819.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000 .3370
90.000 .0667
135.000 .1490
180.000 .0000
225.000 .1383
270.000 .0308
315.000 .3276

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G24) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.884 BETA (1) = -.003 MACH = 1.4001 RN/L = 4.2484 PO = 2114.0 P = 664.19

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0083
45.000 .2840
90.000 -.0340
135.000 .2990
180.000 .0000
225.000 .2525
270.000 -.0645
315.000 .2776

ALPHA (2) = -.370 BETA (1) = -4.009 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .6506

PHI

.000 .0109
45.000 .3879
90.000 .0240
135.000 .2400
180.000 .0000
225.000 .1479
270.000 -.1191
315.000 .1115

ALPHA (2) = -.370 BETA (2) = .000 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0139
45.000 .3236
90.000 -.0569
135.000 .3197
180.000 .0000
225.000 .2941

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G24)

ALPHA (2) = -.370 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3164 -.0956

ALPHA (2) = -.429 BETA (3) = 4.012 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0162
45.000 .1307
90.000 -.1008
135.000 .1678
180.000 .0000
225.000 .2337
270.000 -.0508
315.000 .3839

ALPHA (3) = 3.894 BETA (1) = .000 MACH = 1.3947 RN/L = 4.2558 PO = 2114.0 P = 669.27

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0323
45.000 .3037
90.000 -.1073
135.000 .2436
180.000 .0000
225.000 .2053
270.000 -.1550
315.000 .2944

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N) ET

(RE4025) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.020 BETA (1) = -.063 MACH = 1.0964 RN/L = 4.3166 PO = 2104.1 P = 989.88

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2372
45.000 .1137
90.000 .2041
135.000 .3023
180.000 .0000
225.000 .2977
270.000 .2024
315.000 .0960

ALPHA (2) = -.482 BETA (1) = -.4069 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2270
45.000 .1810
90.000 .2399
135.000 .1218
180.000 .0000
225.000 .2461
270.000 .1442
315.000 .1849

ALPHA (2) = -.489 BETA (2) = -.059 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2252
45.000 .2033
90.000 .2243
135.000 .2176
180.000 .0000
225.000 .2089

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 734

ARC11-0231A80 OTS(SRB=N- ORB=N) ET

(RE4025)

ALPHA (2) = -.489 BETA (2) = -.059

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2193
315.000 .1840

ALPHA (2) = -.453 BETA (3) = 3.950 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2212
45.000 .1934
90.000 .1271
135.000 .2789
180.000 .0000
225.000 .1138
270.000 .2159
315.000 .1671

ALPHA (3) = 4.029 BETA (1) = -.059 MACH = 1.1031 RN/L = 4.3201 PO = 2102.0 P = 980.74

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1918
45.000 .2468
90.000 .1505
135.000 .0756
180.000 .0000
225.000 .0648
270.000 .1359
315.000 .2371

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

PAGE 795

ARC11-023IA80 OTS(SRB=N- ORB=N) ET

(RE4G26) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.983 BETA (1) = .000 MACH = 1.2472 RN/L = 4.3616 PO = 2107.7 P = 816.70

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0398
45.000 .2362
90.000 .0067
135.000 .3338
180.000 .0000
225.000 .3197
270.000 -.0074
315.000 .2208

ALPHA (2) = -.443 BETA (1) = -4.006 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1884
45.000 .2924
90.000 .1168
135.000 .1586
180.000 .0000
225.000 .2071
270.000 -.0219
315.000 .2396

ALPHA (2) = -.426 BETA (2) = .003 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1553
45.000 .3295
90.000 -.0013
135.000 .3039
180.000 .0000
225.000 .2916

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N) ET

(RE4G26)

ALPHA (2) = -.426 BETA (2) = .003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0161
315.000 .3219

ALPHA (2) = -.456 BETA (3) = 4.016 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1965
45.000 .2318
90.000 -.0234
135.000 .2689
180.000 .0000
225.000 .1600
270.000 .0835
315.000 .2747

ALPHA (3) = 4.020 BETA (1) = -.003 MACH = 1.2443 RN/L = 4.3536 PO = 2107.0 P = 819.62

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2637
45.000 .3367
90.000 .0737
135.000 .1548
180.000 .0000
225.000 .1397
270.000 .0390
315.000 .3280

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N) ET

(RE4G27) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.805 BETA (1) = .000 MACH = 1.4005 RN/L = 4.2336 PO = 2109.8 P = 662.52

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0050
45.000 .2829
90.000 -.0311
135.000 .2977
180.000 .0000
225.000 .2492
270.000 -.0682
315.000 .2749

ALPHA (2) = -.353 BETA (1) = -4.006 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0098
45.000 .3842
90.000 .0207
135.000 .2371
180.000 .0000
225.000 .1423
270.000 -.1216
315.000 .1054

ALPHA (2) = -.367 BETA (2) = .000 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0154
45.000 .3221
90.000 -.0617
135.000 .3165
180.000 .0000
225.000 .2924

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N) ET

(RE4027)

ALPHA (2) = -.367 BETA (2) = .000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000

-.0944

.3185

ALPHA (2) = -.400 BETA (3) = 4.012 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.0156

.1295

-.1010

.1695

.0000

.2318

-.0503

.3834

ALPHA (3) = 3.983 BETA (1) = .000 MACH = 1.3983 RN/L = 4.2365 PO = 2109.8 P = 664.56

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.0341

.3006

-.1083

.2441

.0000

.2085

-.1562

.2972

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G28) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.000 BETA (1) = -.016 MACH = .59820 RN/L = 3.3864 PO = 2123.2 P = 1666.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0514
45.000 -.1379
90.000 -.1200
135.000 .0379
180.000 .0000
225.000 .0379
270.000 -.1189
315.000 -.1498

ALPHA (2) = -.264 BETA (1) = -4.034 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0351
45.000 .0016
90.000 -.0950
135.000 .0033
180.000 .0000
225.000 -.0433
270.000 -.1089
315.000 -.2130

ALPHA (2) = -.251 BETA (2) = -.019 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0365
45.000 -.1020
90.000 -.0973
135.000 -.0113
180.000 .0000
225.000 -.0086

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G28)

ALPHA (2) = -.261 BETA (2) = -.019

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0986

315.000 -.1034

ALPHA (2) = -.274 BETA (3) = 3.991 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0417

45.000 -.2099

90.000 -.1171

135.000 -.0393

180.000 .0000

225.000 .0081

270.000 -.0939

315.000 -.0045

ALPHA (3) = 4.013 BETA (1) = -.019 MACH = .59700 RN/L = 3.3862 PO = 2124.6 P = 1669.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0188

45.000 -.0433

90.000 -.0664

135.000 -.0647

180.000 .0000

225.000 -.0589

270.000 -.0923

315.000 -.0464

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G29) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.006 MACH = .90100 RN/L = 4.2493 PO = 2121.1 P = 1252.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0308
45.000 -.1411
90.000 -.0009
135.000 .0875
180.000 .0000
225.000 .0941
270.000 -.0104
315.000 -.1528

ALPHA (2) = -.320 BETA (1) = -4.022 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0290
45.000 -.0200
90.000 .0002
135.000 -.0082
180.000 .0000
225.000 .0214
270.000 -.0392
315.000 -.1246

ALPHA (2) = -.310 BETA (2) = -.009 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0475
45.000 -.0715
90.000 .0033
135.000 .0086
180.000 .0000
225.000 .0189

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G29)

ALPHA (2) = -.310 BETA (2) = -.009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0179

315.000 -.0818

ALPHA (2) = -.297 BETA (3) = 4.006 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0268

45.000 -.0987

90.000 -.0374

135.000 .0268

180.000 .0000

225.000 .0051

270.000 -.0093

315.000 -.0261

ALPHA (3) = 3.986 BETA (1) = -.009 MACH = .89810 RN/L = 4.2418 PO = 2119.7 P = 1255.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0287

45.000 -.0161

90.000 -.0993

135.000 -.0650

180.000 .0000

225.000 -.0589

270.000 -.1077

315.000 -.0243

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 803

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G30) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.016 BETA (1) = -.003 MACH = 1.0992 RN/L = 4.3334 PO = 2116.2 P = 992.05

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2393
45.000 .1150
90.000 .2122
135.000 .3050
180.000 .0000
225.000 .2984
270.000 .2012
315.000 .0980

ALPHA (2) = -.370 BETA (1) = -4.006 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2293
45.000 .1841
90.000 .2323
135.000 .1185
180.000 .0000
225.000 .2451
270.000 .1489
315.000 .1895

ALPHA (2) = -.343 BETA (2) = .003 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2244
45.000 .2069
90.000 .2286
135.000 .2162
180.000 .0000
225.000 .2073

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 804

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G30)

ALPHA (2) = -.343 BETA (2) = .003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .2210

315.000 .1885

ALPHA (2) = -.370 BETA (3) = 4.609 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2224

45.000 .1971

90.000 .1109

135.000 .2789

180.000 .0000

225.000 .1102

270.000 .2118

315.000 .1721

ALPHA (3) = 3.894 BETA (1) = -.003 MACH = 1.1097 RN/L = 4.2923 PO = 2114.0 P = 978.29

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1946

45.000 .2539

90.000 .1528

135.000 .0804

180.000 .0000

225.000 .0718

270.000 .1404

315.000 .2442

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 805

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4031) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.970 BETA (1) = -.003 MACH = 1.2502 RN/L = 4.3628 PO = 2115.4 P = 816.45

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0233
45.000 .2364
90.000 .0132
135.000 .3351
180.000 .0000
225.000 .3174
270.000 -.0052
315.000 .2243

ALPHA (2) = -.330 BETA (1) = -4.006 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1880
45.000 .2980
90.000 .1110
135.000 .1564
180.000 .0000
225.000 .2021
270.000 -.0188
315.000 .2401

ALPHA (2) = -.317 BETA (2) = .003 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1499
45.000 .3363
90.000 .0275
135.000 .3032
180.000 .0000
225.000 .2903

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 806

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G31)

ALPHA (2) = -.317 BETA (2) = .003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3287

ALPHA (2) = -.370 BETA (3) = 4.012 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000 .2291
90.000 -.0421
135.000 .2604
180.000 .0000
225.000 .1578
270.000 .0745
315.000 .2833

ALPHA (3) = 3.950 BETA (1) = -.003 MACH = 1.2493 RN/L = 4.3586 PO = 2116.9 P = 818.02

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000 .3388
90.000 .0808
135.000 .1518
180.000 .0000
225.000 .1404
270.000 .0499
315.000 .3289

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 807

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G32) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -4.043 BETA (1) = .000 MACH = 1.4047 RN/L = 4.2434 PO = 2120.4 P = 661.94

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0066
45.000 .2776
90.000 -.0285
135.000 .2969
180.000 .0000
225.000 .2529
270.000 -.0548
315.000 .2690

ALPHA (2) = -.195 BETA (1) = -4.012 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0109
45.000 .3924
90.000 .0152
135.000 .2367
180.000 .0000
225.000 .1419
270.000 -.1086
315.000 .1044

ALPHA (2) = -.211 BETA (2) = .000 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0139
45.000 .3168
90.000 -.0416
135.000 .3176
180.000 .0000
225.000 .2979

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 808

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4632)

ALPHA (2) = -.211 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0800

315.000 .3229

ALPHA (2) = .083 BETA (3) = 4.006 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 563.72

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0151

45.000 .1194

90.000 -.0959

135.000 .1803

180.000 .0000

225.000 .2173

270.000 -.0519

315.000 .3958

ALPHA (3) = 4.082 BETA (1) = .000 MACH = 1.3983 RN/L = 4.2463 PO = 2120.4 P = 667.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0321

45.000 .2994

90.000 -.0862

135.000 .2408

180.000 .0000

225.000 .2044

270.000 -.1339

315.000 .2923

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 809

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4633) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
 RN/L = 1.750 MACH = .867

ALPHA (1) = -3.953 BETA (1) = -.003 MACH = .59560 RN/L = 1.7428 PO = 1060.9 P = 834.63

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 -.0515
 45.000 -.1350
 90.000 -.1117
 135.000 .0450
 180.000 .0000
 225.000 .0443
 270.000 -.1138
 315.000 -.1377

ALPHA (2) = -.271 BETA (1) = -4.044 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 -.0500
 45.000 .0012
 90.000 -.1017
 135.000 .0088
 180.000 .0000
 225.000 -.0396
 270.000 -.1169
 315.000 -.2082

ALPHA (2) = -.284 BETA (2) = -.001 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 -.0341
 45.000 -.0930
 90.000 -.0842
 135.000 -.0023
 180.000 .0000
 225.000 .0045

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 810

ARC11-0231A80 OTS(3RB=OFF ORB=OFF) ET

(RE4633)

ALPHA (2) = -.284 BETA (2) = -.031

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0876
315.000 -.0944

ALPHA (2) = -.343 BETA (3) = 3.984 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0534
45.000 -.2072
90.000 -.1093
135.000 -.0354
180.000 .0000
225.000 .0101
270.000 -.1017
315.000 -.0051

ALPHA (3) = 3.963 BETA (1) = -.003 MACH = .59300 RN/L = 1.7403 PO = 1060.2 P = 835.76

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0319
45.000 -.0464
90.000 -.0850
135.000 -.0629
180.000 .0000
225.000 -.0636
270.000 -.1070
315.000 -.0526

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 811

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G34) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 2.250 MACH = .900

ALPHA (1) = -3.947 BETA (1) = .000 MACH = .90000 RN/L = 2.1578 PO = 1061.6 P = 627.70

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0225
45.000 -.1414
90.000 -.0034
135.000 .0907
180.000 .0000
225.000 .0971
270.000 -.0142
315.000 -.1515

ALPHA (2) = -.264 BETA (1) = -4.044 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0178
45.000 -.0214
90.000 -.0102
135.000 .0042
180.000 .0000
225.000 .0226
270.000 -.0366
315.000 -.1226

ALPHA (2) = -.271 BETA (2) = -.031 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0323
45.000 -.0740
90.000 -.0064
135.000 .0034
180.000 .0000
225.000 .0213

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4034)

ALPHA (2) = -.271 BETA (2) = -.031

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0250
315.000 -.0835

ALPHA (2) = -.304 BETA (3) = 3.984 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0090
45.000 -.1184
90.000 -.0479
135.000 .0150
180.000 .0000
225.000 .0166
270.000 -.0294
315.000 -.0210

ALPHA (3) = 3.990 BETA (1) = -.003 MACH = .90350 RN/L = 2.1629 PO = 1061.6 P = 625.33

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0239
45.000 -.0123
90.000 -.0882
135.000 -.0596
180.000 .0000
225.000 -.0524
270.000 -.1061
315.000 -.0163

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 813

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4635) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 2.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .000 MACH = 1.0935 RN/L = 2.2424 PO = 1058.8 P = 499.91

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2223
45.000 .1040
90.000 .1901
135.000 .2979
180.000 .0000
225.000 .2969
270.000 .1840
315.000 .0918

ALPHA (2) = -.225 BETA (1) = -4.009 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2079
45.000 .1741
90.000 .2160
135.000 .1181
180.000 .0000
225.000 .2376
270.000 .1393
315.000 .1781

ALPHA (2) = -.225 BETA (2) = .000 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2096
45.000 .1941
90.000 .2207
135.000 .2059
180.000 .0000
225.000 .1998

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 814

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G35)

ALPHA (2) = -.225 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .2079

315.000 .1796

ALPHA (2) = -.231 BETA (3) = 4.012 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1998

45.000 .1804

90.000 .1049

135.000 .2483

180.000 .0000

225.000 .1178

270.000 .1961

315.000 .1634

ALPHA (3) = 4.016 BETA (1) = -.003 MACH = 1.1017 RN/L = 2.2510 PO = 1060.9 P = 495.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1796

45.000 .2378

90.000 .1379

135.000 .0706

180.000 .0000

225.000 .0632

270.000 .1204

315.000 .2267

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 8:5

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G36) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 2.250 MACH = 1.250

ALPHA (1) = -3.993 BETA (1) = .003 MACH = 1.2488 RN/L = 2.2675 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0155
45.000 .2141
90.000 .0117
135.000 .3246
180.000 .0000
225.000 .3100
270.000 -.0060
315.000 .2046

ALPHA (2) = -.145 BETA (1) = -4.003 MACH = 1.2488 RN/L = 2.2580 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1693
45.000 .2918
90.000 .1060
135.000 .1624
180.000 .0000
225.000 .2038
270.000 -.0152
315.000 .2140

ALPHA (2) = -.129 BETA (2) = .003 MACH = 1.2488 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1558
45.000 .3022
90.000 .0381
135.000 .2788
180.000 .0000
225.000 .2709

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF) ET

(RE4G36)

ALPHA (2) = -.129 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .0020
315.000 .3003

ALPHA (2) = -.175 BETA (3) = 4.009 MACH = 1.2488 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1716
45.000 .2039
90.000 -.0220
135.000 .2473
180.000 .0000
225.000 .1583
270.000 .0708
315.000 .2796

ALPHA (3) = 4.072 BETA (1) = .003 MACH = 1.2496 RN/L = 2.2672 PO = 1060.9 P = 409.77

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2520
45.000 .3251
90.000 .0779
135.000 .1466
180.000 .0000
225.000 .1311
270.000 .0501
315.000 .3147

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF) ET

(RE4037) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 2.250 MACH = 1.400

ALPHA (1) = -4.013 BETA (1) = .003 MACH = 1.3998 RN/L = 2.2349 PO = 1061.6 P = 333.70

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0055
45.000 .2378
90.000 -.0321
135.000 .2735
180.000 .0000
225.000 .2393
270.000 -.0576
315.000 .2352

ALPHA (2) = -.241 BETA (1) = -4.006 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0028
45.000 .3618
90.000 .0080
135.000 .2236
180.000 .0000
225.000 .1310
270.000 -.1131
315.000 .0922

ALPHA (2) = -.264 BETA (2) = .000 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0007
45.000 .2820
90.000 -.0425
135.000 .2801
180.000 .0000
225.000 .2543

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 818

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4037)

ALPHA (2) = -.264 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0794
315.000 .2804

ALPHA (2) = -.267 BETA (3) = 4.009 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0021
45.000 .1095
90.000 -.0965
135.000 .1533
180.000 .0000
225.000 .2273
270.000 -.0492
315.000 .3645

ALPHA (3) = 4.010 BETA (1) = .003 MACH = 1.3956 RN/L = 2.2367 PO = 1060.2 P = 335.22

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0218
45.000 .2782
90.000 -.0985
135.000 .2036
180.000 .0000
225.000 .1734
270.000 -.1410
315.000 .2698

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G38) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 1.750 MACH = .600

ALPHA (1) = -3.980 BETA (1) = -.003 MACH = .59910 RN/L = 1.7583 PO = 1060.9 P = 832.35

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .3506

PHI
.000 -.0645
45.000 -.1433
90.000 -.1215
135.000 .0366
180.000 .0000
225.000 .0386
270.000 -.1255
315.000 -.1479

ALPHA (2) = -.314 BETA (1) = -4.044 MACH = .59907 RN/L = 1.7686 PO = 1066.1 P = 836.42

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0494
45.000 .0005
90.000 -.0967
135.000 .0093
180.000 .0000
225.000 -.0359
270.000 -.1135
315.000 -.2053

ALPHA (2) = -.317 BETA (2) = -.009 MACH = .59907 RN/L = 1.7685 PO = 1066.1 P = 836.42

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0476
45.000 -.0997
90.000 -.1017
135.000 -.0082
180.000 .0000
225.000 -.0022

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G38)

ALPHA (2) = -.317 BETA (2) = -.009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.1051

315.000 -.1031

ALPHA (2) = -.327 BETA (3) = 3.981 MACH = .59907 RN/L = 1.7686 PO = 1066.1 P = 836.42

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0514

45.000 -.2082

90.000 -.1142

135.000 -.0357

180.000 .0000

225.000 .0141

270.000 -.0958

315.000 .0032

ALPHA (3) = 3.950 BETA (1) = -.003 MACH = .60350 RN/L = 1.7801 PO = 1066.6 P = 833.90

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0328

45.000 -.0481

90.000 -.0761

135.000 -.0574

180.000 .0000

225.000 -.0514

270.000 -.1014

315.000 -.0454

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 821

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G39) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 2.250 MACH = .900

ALPHA (1) = -3.986 BETA (1) = .003 MACH = .89730 RN/L = 2.1589 PO = 1063.0 P = 630.39

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI
.000 .0162
45.000 -.1469
90.000 -.0134
135.000 .0906
180.000 .0000
225.000 .0989
270.000 -.0198
315.000 -.1561

ALPHA (2) = -.294 BETA (1) = -4.044 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0182
45.000 -.0198
90.000 -.0174
135.000 .0070
180.000 .0000
225.000 .0226
270.000 -.0422
315.000 -.1253

ALPHA (2) = -.310 BETA (2) = -.028 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0394
45.000 -.0662
90.000 .0033
135.000 .0131
180.000 .0000
225.000 .0253

DATE 23 JUL 75

TABULATED SOURCE DATA - 1A80

PAGE 822

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4039)

ALPHA (2) = -.310 BETA (2) = -.028

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0171
315.000 -.0756

ALPHA (2) = -.520 BETA (3) = 3.981 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0096
45.000 -.1102
90.000 -.0467
135.000 .0216
180.000 .0000
225.000 .0081
270.000 -.0241
315.000 -.0285

ALPHA (3) = 3.970 BETA (1) = .000 MACH = .90120 RN/L = 2.1536 PO = 1060.2 P = 626.02

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0196
45.000 -.0114
90.000 -.0947
135.000 -.0588
180.000 .0000
225.000 -.0509
270.000 -.1079
315.000 -.0166

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 823

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4040) (14 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 2.250 MACH = 1.100

ALPHA (1) = -3.801 BETA (1) = -.006 MACH = 1.0940 RN/L = 2.2469 PO = 1059.5 P = 499.92

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2261
45.000 .1103
90.000 .1902
135.000 .2982
180.000 .0000
225.000 .2951
270.000 .1885
315.000 .0958

ALPHA (2) = -.304 BETA (1) = -4.003 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2113
45.000 .1738
90.000 .2207
135.000 .1216
180.000 .0000
225.000 .2382
270.000 .1415
315.000 .1792

ALPHA (2) = -.267 BETA (2) = .003 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2114
45.000 .1949
90.000 .2178
135.000 .2090
180.000 .0000
225.000 .2033

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 824

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4040)

ALPHA (2) = -.267 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2067
315.000 .1808

ALPHA (2) = -.390 BETA (3) = 4.016 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2056
45.000 .1816
90.000 .1235
135.000 .2501
180.000 .0000
225.000 .1218
270.000 .2035
315.000 .1640

ALPHA (3) = 3.983 BETA (1) = .003 MACH = 1.1029 RN/L = 2.2596 PO = 1063.7 P = 496.39

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1819
45.000 .2385
90.000 .1393
135.000 .0757
180.000 .0000
225.000 .0653
270.000 .1169
315.000 .2288

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF) ET

(RE4G41) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 2.500 MACH = .600

ALPHA (1) = -4.000 BETA (1) = -.022 MACH = .60170 RN/L = 2.5509 PO = 1557.4 P = 1219.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0467
45.000 -.1367
90.000 -.1183
135.000 .0479
180.000 .0000
225.000 .0433
270.000 -.1114
315.000 -.1413

ALPHA (2) = -.261 BETA (1) = -4.041 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0378
45.000 .0062
90.000 -.0925
135.000 .0085
180.000 .0000
225.000 -.0378
270.000 -.1037
315.000 -.2056

ALPHA (2) = -.271 BETA (2) = -.025 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0326
45.000 -.0950
90.000 -.0858
135.000 -.0084
180.000 .0000
225.000 .0007

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 826

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G41)

ALPHA (2) = -.271 BETA (2) = -.025

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0941
315.000 -.0982

ALPHA (2) = -.343 BETA (3) = 3.991 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0421
45.000 -.2078
90.000 -.1104
135.000 -.0334
180.000 .0000
225.000 .0171
270.000 -.0881
315.000 .0053

ALPHA (3) = 3.944 BETA (1) = -.022 MACH = .60230 RN/L = 2.5548 PO = 1556.7 P = 1218.3

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0168
45.000 -.0425
90.000 -.0659
135.000 -.0572
180.000 .0000
225.000 -.0553
270.000 -.0929
315.000 -.0448

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 827

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G42) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.250 MACH = .900

ALPHA (1) = -3.930 BETA (1) = .003 MACH = .90330 RN/L = 3.1425 PO = 1558.1 P = 918.01

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0298
45.000 -.1366
90.000 -.0035
135.000 .0887
180.000 .0000
225.000 .0960
270.000 -.0108
315.000 -.1505

ALPHA (2) = -.284 BETA (1) = -4.041 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0305
45.000 -.0194
90.000 .0049
135.000 -.0013
180.000 .0000
225.000 .0286
270.000 -.0302
315.000 -.1131

ALPHA (2) = -.281 BETA (2) = -.028 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0366
45.000 -.0788
90.000 -.0097
135.000 .0030
180.000 .0000
225.000 .0157

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G42)

ALPHA (2) = -.281 BETA (2) = -.028

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0298

315.000 -.0896

ALPHA (2) = -.248 BETA (3) = 3.994 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0185

45.000 -.1097

90.000 -.0418

135.000 .0210

180.000 .0000

225.000 .0128

270.000 -.0181

315.000 -.0230

ALPHA (3) = 3.960 BETA (1) = .000 MACH = .89670 RN/L = 3.1185 PO = 1557.4 P = 924.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0264

45.000 -.0163

90.000 -.0912

135.000 -.0640

180.000 .0000

225.000 -.0574

270.000 -.1084

315.000 -.0223

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 829

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G43) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LPEF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 3.250 MACH = 1.100

ALPHA (1) = -4.016 BETA (1) = .003 MACH = 1.0981 RN/L = 3.2788 PO = 1555.3 P = 730.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2348
45.000 .1150
90.000 .2056
135.000 .3048
180.000 .0000
225.000 .2993
270.000 .1946
315.000 .0995

ALPHA (2) = -.287 BETA (1) = -4.006 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2194
45.000 .1791
90.000 .2272
135.000 .1161
180.000 .0000
225.000 .2406
270.000 .1444
315.000 .1830

ALPHA (2) = -.291 BETA (2) = .000 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2192
45.000 .2025
90.000 .2250
135.000 .2110
180.000 .0000
225.000 .2041

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 830

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4043)

ALPHA (2) = -.291 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	.2158
315.000	.1864

ALPHA (2) = -.310 BETA (3) = 4.006 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.2136
45.000	.1907
90.000	.1156
135.000	.2707
180.000	.0000
225.000	.1086
270.000	.2044
315.000	.1689

ALPHA (3) = 4.016 BETA (1) = .003 MACH = 1.1070 RN/L = 3.2713 PO = 1554.6 P = 721.83

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.1889
45.000	.2479
90.000	.1456
135.000	.0749
180.000	.0000
225.000	.0689
270.000	.1296
315.000	.2392

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 831

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4644) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .000 MACH = 1.3532 RN/L = 3.2918 PO = 1554.6 P = 597.59

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0225
45.000 .2376
90.000 .0137
135.000 .3320
180.000 .0000
225.000 .3175
270.000 -.0031
315.000 .2270

ALPHA (2) = -.287 BETA (1) = -4.003 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1817
45.000 .2903
90.000 .1178
135.000 .1549
180.000 .0000
225.000 .2100
270.000 -.0207
315.000 .2257

ALPHA (2) = -.277 BETA (2) = .003 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1449
45.000 .3282
90.000 .0257
135.000 .2965
180.000 .0000
225.000 .2836

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 832

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G44)

ALPHA (2) = -.277 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000

-.0051
.3215

ALPHA (2) = -.376 BETA (3) = 4.012 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.1797
.2251
-.0370
.25
.0000
.1667
.0626
.2887

ALPHA (3) = 3.947 BETA (1) = -.003 MACH = 1.2488 RN/L = 3.2905 PO = 1553.9 P = 600.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.2580
.3329
.0813
.1513
.0000
.1420
.0427
.3239

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 833

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4645) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.250 MACH = 1.400

ALPHA (1) = -3.990 BETA (1) = -.003 MACH = 1.4024 RN/L = 3.2259 PO = 1554.6 P = 486.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0006
45.000 .2644
90.000 -.0299
135.000 .2877
180.000 .0000
225.000 .2445
270.000 -.0589
315.000 .2583

ALPHA (2) = -.284 BETA (1) = -4.000 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0059
45.000 .3817
90.000 .0103
135.000 .2377
180.000 .0000
225.000 .1404
270.000 -.1084
315.000 .1020

ALPHA (2) = -.297 BETA (2) = .000 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0106
45.000 .3045
90.000 -.0385
135.000 .3040
180.000 .0000
225.000 .2774

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 834

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G45)

ALPHA (2) = -.297 BETA (2) = .000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0768
315.000 .3013

ALPHA (2) = -.294 BETA (3) = 4.009 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0063
45.000 .1184
90.000 -.0909
135.000 .1625
180.000 .0000
225.000 .2347
270.000 -.0439
315.000 .3792

ALPHA (3) = 3.980 BETA

CH = 1.4028 RN/L = 3.2136 PO = 173.2 P = 486.18

SECTION (1) EXTERNAL TANK

VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0284
45.000 .2854
90.000 -.0841
135.000 .2325
180.000 .0000
225.000 .1992
270.000 -.1326
315.000 .2824

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

PAGE 835

ARC11-023IA80 OTS(SRB=N ORB=N) ET

(RE4046) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 2.500 MACH = .600

ALPHA (1) = -3.894 BETA (1) = -.022 MACH = .60060 RN/L = 2.5569 PO = 1558.8 P = 1221.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0595
45.000 -.1441
90.000 -.1188
135.000 .0347
180.000 .0000
225.000 .0388
270.000 -.1233
315.000 -.1504

ALPHA (2) = -.350 BETA (1) = -4.041 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0443
45.000 .0011
90.000 -.0907
135.000 .0094
180.000 .0000
225.000 -.0384
270.000 -.1127
315.000 -.2072

ALPHA (2) = -.320 BETA (2) = -.025 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0427
45.000 -.1027
90.000 -.0990
135.000 -.0127
180.000 .0000
225.000 -.0035

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 836

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4046)

ALPHA (2) = -.320 BETA (2) = -.025

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	-.1068
315.000	-.1059

ALPHA (2) = -.337 BETA (3) = 3.994 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	-.0583
45.000	-.2088
90.000	-.1238
135.000	-.0388
180.000	.0000
225.000	.0095
270.000	-.1122
315.000	-.0077

ALPHA (3) = 4.076 BETA (1) = -.028 MACH = .50170 RN/L = 2.5615 PO = 1555.3 P = 1217.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	-.0164
45.000	-.0407
90.000	-.0651
135.000	-.0572
180.000	.0000
225.000	-.0504
270.000	-.0899
315.000	-.0380

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

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ARC11-023IA80 OTS(SRB=N ORB=N) ET

(RE4047) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.250 MACH = .900

ALPHA (1) = -4.033 BETA (1) = .000 MACH = .90410 RN/L = 3.1247 PO = 1556.7 P = 916.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0332
45.000 -.1381
90.000 .0019
135.000 .0329
180.000 .0000
225.000 .1018
270.000 -.0094
315.000 -.1446

ALPHA (2) = -.343 BETA (1) = -4.044 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0271
45.000 -.0197
90.000 -.0007
135.000 -.0013
180.000 .0000
225.000 .0277
270.000 -.0353
315.000 -.1178

ALPHA (2) = -.340 BETA (2) = -.028 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0441
45.000 -.0689
90.000 .0023
135.000 .0123
180.000 .0000
225.000 .0212

DATE 23 JUL 76

TABULATED SPACE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4647)

ALPHA (2) = -.340 BETA (2) = -.028

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0178
315.000 -.0783

ALPHA (2) = -.340 BETA (3) = 3.991 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0225
45.000 -.1059
90.000 -.0373
135.000 .0244
180.000 .0000
225.000 .0111
270.000 -.0173
315.000 -.0221

ALPHA (3) = 3.927 BETA (1) = -.028 MACH = .90080 RN/L = 3.1258 PO = 1559.5 P = 921.25

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0250
45.000 -.0121
90.000 -.0949
135.000 -.0592
180.000 .0000
225.000 -.0513
270.000 -.1149
315.000 -.0191

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

PAGE 839

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4648) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
 RN/L = 3.250 MACH = 1.100

ALPHA (1) = -3.934 BETA (1) = .003 MACH = 1.0985 RN/L = 3.2696 PO = 1558.8 P = 731.42

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
 PHI
 .000 .2345
 45.000 .1180
 90.000 .1986
 135.000 .3012
 180.000 .0000
 225.000 .2964
 270.000 .1000
 315.000 .1018

ALPHA (2) = -.413 BETA (1) = -4.006 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
 PHI
 .000 .2237
 45.000 .1811
 90.000 .2361
 135.000 .1218
 180.000 .0000
 225.000 .2421
 270.000 .1436
 315.000 .1862

ALPHA (2) = -.443 BETA (2) = .000 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
 PHI
 .000 .2200
 45.000 .2029
 90.000 .2212
 135.000 .2159
 180.000 .0000
 225.000 .2086

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

PAGE 840

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4C48)

ALPHA (2) = -.443 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2150
315.000 .1867

ALPHA (2) = -.420 BETA (3) = 4.016 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2181
45.000 .1927
90.000 .1281
135.000 .2728
180.000 .0000
225.000 .1143
270.000 .2119
315.000 .1675

ALPHA (3) = 3.884 BETA (1) = .000 MACH = 1.1080 RN/L = 3.2705 PO = 1558.1 P = 722.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1917
45.000 .2492
90.000 .1491
135.000 .0809
180.000 .0000
225.000 .0725
270.000 .1308
315.000 .2398

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G49) (21 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 ALPHA = .000

BETA (1) = -.063 MACH (1) = .908 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0473
45.000 -.0667
90.000 -.0044
135.000 -.0006
180.000 .0000
225.000 .0088
270.000 -.0191
315.000 -.0763

BETA (1) = -.063 MACH (2) = .947 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0814
45.000 -.0074
90.000 .0527
135.000 .0316
180.000 .0000
225.000 .0401
270.000 .0430
315.000 -.0174

BETA (1) = -.053 MACH (3) = .998 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1341
45.000 .0632
90.000 .1274
135.000 .0896
180.000 .0000
225.000 .0936

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G49)

BETA (1) = -.063 MACH (3) = .998

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .1234
315.000 .0523

BETA (1) = -.053 MACH (4) = 1.050 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1758
45.000 .1360
90.000 .1789
135.000 .1519
180.000 .0000
225.000 .1539
270.000 .1749
315.000 .1233

BETA (1) = -.063 MACH (5) = 1.102 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2212
45.000 .2067
90.000 .2305
135.000 .1991
180.000 .0000
225.000 .1888
270.000 .2293
315.000 .1898

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 843

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4049)

BETA (1) = -.083 MACH (6) = 1.146 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2176
45.000 .2567
90.000 .2097
135.000 .2333
180.000 .0000
225.000 .2181
270.000 .1960
315.000 .2420

BETA (1) = -.063 MACH (7) = 1.196 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2217
45.000 .2992
90.000 .1456
135.000 .2604
180.000 .0000
225.000 .2445
270.000 .1264
315.000 .2869

BETA (1) = -.063 MACH (8) = 1.253 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1815
45.000 .3338
90.000 .0351
135.000 .2853
180.000 .0000
225.000 .2725
270.000 .0058
315.000 .3296

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

PAGE 844

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G50) (21 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 ALPHA = .000

BETA (1) = -.063 MACH (1) = .893 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0271
 45.000 -.0869
 90.000 -.0314
 135.000 -.0135
 180.000 .0000
 225.000 -.0030
 270.000 -.0480
 315.000 -.0993

BETA (1) = -.063 MACH (2) = .948 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0804
 45.000 -.0095
 90.000 .0503
 135.000 .0330
 180.000 .0000
 225.000 .0430
 270.000 .0379
 315.000 -.0202

BETA (1) = -.063 MACH (3) = .995 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .1315
 45.000 .0569
 90.000 .1213
 135.000 .0879
 180.000 .0000
 225.000 .0947

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 845

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4050)

BETA (1) = -.063 MACH (3) = .995

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .1200

315.000 .0460

BETA (1) = -.063 MACH (4) = 1.052 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CF

XT/LT .3362 .8506

PHI

.000 .1789

45.000 .1366

90.000 .1782

135.000 .1572

180.000 .0000

225.000 .1597

270.000 .1750

315.000 .1237

BETA (1) = -.063 MACH (5) = 1.098 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2202

45.000 .2008

90.000 .2239

135.000 .1992

180.000 .0000

225.000 .1940

270.000 .2140

315.000 .1025

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 846

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4650)

BETA (1) = -.063 MACH (6) = 1.149 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000		.2186
45.000	.2584	
90.000		.1975
135.000	.2407	
180.000		.0000
225.000	.2272	
270.000		.1923
315.000	.2430	

BETA (1) = -.063 MACH (7) = 1.197 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000		.2222
45.000	.2987	
90.000		.1319
135.000	.2647	
180.000		.0000
225.000	.2454	
270.000		.1187
315.000	.2860	

BETA (1) = -.063 MACH (8) = 1.250 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000		.1792
45.000	.3322	
90.000		.0098
135.000	.2972	
180.000		.0000
225.000	.2753	
270.000		-.0134
315.000	.3238	

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 847

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4651) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 4.000
RN/L = 4.250 MACH = .990

ALPHA (1) = -3.950 BETA (1) = -.063 MACH = .98240 RN/L = 4.3057 PO = 2116.2 P = 1141.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1337
45.000 -.0246
90.000 .1079
135.000 .1546
180.000 .0000
225.000 .1636
270.000 .1028
315.000 -.0358

ALPHA (2) = -.416 BETA (1) = -4.075 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1071
45.000 .0509
90.000 .1347
135.000 .0393
180.000 .0000
225.000 .1156
270.000 .0575
315.000 .0056

ALPHA (2) = -.386 BETA (2) = -.063 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1277
45.000 .0437
90.000 .1184
135.000 .0982
180.000 .0000
225.000 .0358

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 848

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4051)

ALPHA (2) = -.386 BETA (2) = -.063

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .1160
315.000 .0326

ALPHA (2) = -.370 BETA (3) = 3.950 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0995
45.000 .0182
90.000 .0298
135.000 .1173
180.000 .0000
225.000 .0502
270.000 .1241
315.000 .0449

ALPHA (3) = 4.076 BETA (1) = -.063 MACH = .98530 RN/L = 4.3166 PO = 2116.2 P = 1137.1

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0890
45.000 .1024
90.000 .0167
135.000 -.0022
180.000 .0000
225.000 .0043
270.000 .0060
315.000 .0925

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G52) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 MACH = .980

ALPHA (1) = -3.930 BETA (1) = -.063 MACH = .97970 RN/L = 4.2999 PO = 2109.1 P = 1140.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1305
45.000 -.0279
90.000 .1019
135.000 .1517
180.000 .0000
225.000 .1617
270.000 .0979
315.000 -.0401

ALPHA (2) = -.519 BETA (1) = -4.078 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1038
45.000 .0448
90.000 .1313
135.000 .0392
180.000 .0000
225.000 .1154
270.000 .0501
315.000 -.0099

ALPHA (2) = -.476 BETA (2) = -.063 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1292
45.000 .0426
90.000 .1186
135.000 .0923
180.000 .0000
225.000 .0993

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 850

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G52)

ALPHA (2) = -.476 BETA (2) = -.063

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .1150
315.000 .0320

ALPHA (2) = -.499 BETA (3) = 3.953 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0982
45.000 .0035
90.000 .0309
135.000 .1162
180.000 .0000
225.000 .0530
270.000 .1209
315.000 .0392

ALPHA (3) = 3.993 BETA (1) = -.063 MACH = .98140 RN/L = 4.30E5 PO = 2109.8 P = 1138.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0630
45.000 .0971
90.000 .0092
135.000 -.0026
180.000 .0000
225.000 .0005
270.000 -.0033
315.000 .0852

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 851

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4653) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.944 BETA (1) = .000 MACH = .60320 RN/L = 3.4712 PO = 2123.2 P = 1660.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0443
45.000 -.1435
90.000 -.1190
135.000 .0369
180.000 .0000
225.000 .0378
270.000 -.1130
315.000 -.1485

ALPHA (2) = -.320 BETA (1) = -4.050 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0292
45.000 .0035
90.000 -.0850
135.000 .0059
180.000 .0000
225.000 -.0392
270.000 -.1000
315.000 -.2145

ALPHA (2) = -.297 BETA (2) = .000 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0305
45.000 -.1067
90.000 -.0930
135.000 -.0131
180.000 .0000
225.000 -.0085

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 852

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4053)

ALPHA (2) = -.297 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0873

315.000 -.1043

ALPHA (2) = -.314 BETA (3) = 3.978 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0327

45.000 -.2104

90.000 -.1040

135.000 -.0370

180.000 .0000

225.000 .0071

270.000 -.0788

315.000 -.0075

ALPHA (3) = 4.053 BETA (1) = .000 MACH = .60520 RN/L = 3.4659 PO = 2121.8 P = 1656.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0115

45.000 -.0428

90.000 -.0598

135.000 -.0628

180.000 .0000

225.000 -.0572

270.000 -.0779

315.000 -.0438

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 853

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G54) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.940 BETA (1) = -.044 MACH = .89610 RN/L = 4.1894 PO = 2105.5 P = 1250.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0279
45.000 -.1437
90.000 -.0070
135.000 .0863
180.000 .0000
225.000 .0946
270.000 -.0175
315.000 -.1538

ALPHA (2) = -.284 BETA (1) = -4.059 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0228
45.000 -.0253
90.000 -.0118
135.000 -.0078
180.000 .0000
225.000 .0133
270.000 -.0461
315.000 -.1373

ALPHA (2) = -.320 BETA (2) = -.041 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0360
45.000 -.0864
90.000 -.0136
135.000 .0001
180.000 .0000
225.000 .0126

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 854

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4054)

ALPHA (2) = -.320 BETA (2) = -.041

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0328

315.000 -.0961

ALPHA (2) = -.314 BETA (3) = 3.975 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0144

45.000 -.1326

90.000 -.0580

135.000 .0070

180.000 .0000

225.000 .0062

270.000 -.0310

315.000 -.0290

ALPHA (3) = 3.980 BETA (1) = -.038 MACH = .89310 RN/L = 4.1769 PO = 2101.3 P = 1251.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0329

45.000 -.0188

90.000 -.0925

135.000 -.0641

180.000 .0000

225.000 -.0535

270.000 -.0975

315.000 -.0251

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 855

ARC11-0231A80 OTS(SRB=OFF CRB=OFF) ET

(RE4055) (13 JAN 75)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.772 BETA (1) = -.066 MACH = 1.1026 RN/L = 4.3661 PO = 2116.2 P = 987.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2375
45.000 .1241
90.000 .2145
135.000 .3000
180.000 .0000
225.000 .2971
270.000 .2039
315.000 .1066

ALPHA (2) = -.380 BETA (1) = -4.075 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2283
45.000 .1861
90.000 .2449
135.000 .1207
180.000 .0000
225.000 .2454
270.000 .1484
315.000 .1908

ALPHA (2) = -.357 BETA (2) = -.059 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2222
45.000 .2094
90.000 .2258
135.000 .2148
180.000 .0000
225.000 .2079

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 856

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4055)

ALPHA (2) = -.357 BETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	.2130
315.000	.1905

ALPHA (2) = -.367 BETA (3) = 3.956 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.2186
45.000	.1972
90.000	.1096
135.000	.2772
180.000	.0000
225.000	.1081
270.000	.2166
315.000	.1711

ALPHA (3) = 4.092 BETA (1) = -.059 MACH = 1.0997 RN/L = 4.3718 PO = 2114.7 P = 990.85

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.1897
45.000	.2457
90.000	.1471
135.000	.0687
180.000	.0000
225.000	.0616
270.000	.1381
315.000	.2373

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G56) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.950 BETA (1) = -.063 MACH = 1.2534 RN/L = 4.3988 PO = 2111.9 P = 811.60

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0140
45.000 .2432
90.000 .0088
135.000 .3353
180.000 .0000
225.000 .3194
270.000 -.0068
315.000 .2253

ALPHA (2) = -.324 BETA (1) = -4.075 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1831
45.000 .2996
90.000 .1068
135.000 .1585
180.000 .0000
225.000 .2014
270.000 -.0233
315.000 .2374

ALPHA (2) = -.314 BETA (2) = -.063 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1492
45.000 .3357
90.000 .0237
135.000 .3044
180.000 .0000
225.000 .2875

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 858

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G56)

ALPHA (2) = -.314 BETA (2) = -.063

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0055

315.000 .3316

ALPHA (2) = -.343 BETA (3) = 3.953 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1886

45.000 .2327

90.000 -.0403

135.000 .2652

180.000 .0000

225.000 .1566

270.000 .0847

315.000 .2820

ALPHA (3) = 3.967 BETA (1) = -.066 MACH = 1.2519 RN/L = 4.3949 PO = 2112.6 P = 813.49

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2662

45.000 .3432

90.000 .0801

135.000 .1578

180.000 .0000

225.000 .1438

270.000 .0425

315.000 .3331

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 859

ARC11-0231A80 OTS(SRB=OFF ORB=OFF, ET

(RE4G57) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.953 BETA (1) = -.063 MACH = 1.4049 RN/L = 4.3087 PO = 2128.2 P = 664.20

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0066
45.000 .2838
90.000 -.0269
135.000 .2997
180.000 .0000
225.000 .2521
270.000 -.0567
315.000 .2767

ALPHA (2) = -.317 BETA (1) = -4.075 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0103
45.000 .3895
90.000 .0101
135.000 .2380
180.000 .0000
225.000 .1447
270.000 -.1052
315.000 .1046

ALPHA (2) = -.320 BETA (2) = -.059 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0169
45.000 .3236
90.000 -.0361
135.000 .3230
180.000 .0000
225.000 .2981

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 860

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G57)

ALPHA (2) = -.320 BETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	-.0738
315.000	.3237

ALPHA (2) = -.522 BETA (3) = 3.956 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0146
45.000	.1292
90.000	-.0893
135.000	.1723
180.000	.0000
225.000	.2302
270.000	-.0442
315.000	.3859

ALPHA (3) = 4.208 BETA (1) = -.069 MACH = 1.4030 RN/L = 4.2923 PO = 2121.8 P = 663.96

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0355
45.000	.2970
90.000	-.0832
135.000	.2415
180.000	.0000
225.000	.2014
270.000	-.1324
315.000	.2972

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 861

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4658) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.953 BETA (1) = .000 MACH = .59380 RN/L = 3.3921 PO = 2104.8 P = 1658.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0601
45.000 -.1477
90.000 -.1287
135.000 .0289
180.000 .0000
225.000 .0285
270.000 -.1318
315.000 -.1578

ALPHA (2) = -.343 BETA (1) = -4.050 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0429
45.000 -.0055
90.000 -.0959
135.000 .0007
180.000 .0000
225.000 -.0495
270.000 -.1196
315.000 -.2241

ALPHA (2) = -.380 BETA (2) = .000 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0469
45.000 -.1088
90.000 -.1037
135.000 -.0202
180.000 .0000
225.000 -.0167

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 862

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G58)

ALPHA (2) = -.380 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1053
315.000 -.1122

ALPHA (2) = -.386 BETA (3) = 3.978 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0554
45.000 -.2229
90.000 -.1306
135.000 -.0512
180.000 .0000
225.000 -.0033
270.000 -.1043
315.000 -.0151

ALPHA (3) = 3.993 BETA (1) = -.003 MACH = .59700 RN/L = 3.4043 PO = 2104.8 P = 1654.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0284
45.000 -.0484
90.000 -.0734
135.000 -.0696
180.000 .0000
225.000 -.0686
270.000 -.0930
315.000 -.0549

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB: 1 ORB=N) ET

(RE4359) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.983 BETA (1) = -.038 MACH = .89250 RN/L = 4.1747 PO = 2100.6 P = 1252.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0207
45.000 -.1497
90.000 -.0152
135.000 .0825
180.000 .0000
225.000 .0918
270.000 -.0280
315.000 -.1596

ALPHA (2) = -.370 BETA (1) = -4.059 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0176
45.000 -.0309
90.000 -.0177
135.000 -.0112
180.000 .0000
225.000 .0133
270.000 -.0524
315.000 -.1372

ALPHA (2) = -.403 BETA (2) = -.044 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0385
45.000 -.0825
90.000 -.0132
135.000 .0043
180.000 .0000
225.000 .0176

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 864

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4659)

ALPHA (2) = -.403 BETA (2) = -.044

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0297
315.000 -.0918

ALPHA (2) = -.409 BETA (3) = 3.972 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0110
45.000 -.1349
90.000 -.0609
135.000 .0090
180.000 .0000
225.000 .0061
270.000 -.0392
315.000 -.0392

ALPHA (3) = 4.076 BETA (1) = -.041 MACH = .89250 RN/L = 4.1726 PO = 2099.9 P = 1251.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0238
45.000 -.0205
90.000 -.1103
135.000 -.0587
180.000 .0000
225.000 -.0607
270.000 -.1182
315.000 -.0246

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G60) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = -.059 MACH = 1.1000 RN/L = 4.3718 PO = 2109.8 P = 988.18

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2357
45.000 .1179
90.000 .2023
135.000 .3054
180.000 .0000
225.000 .2977
270.000 .1983
315.000 .1006

ALPHA (2) = -.528 BETA (1) = -4.075 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2247
45.000 .1790
90.000 .2387
135.000 .1246
180.000 .0000
225.000 .2478
270.000 .1403
315.000 .1827

ALPHA (2) = -.492 BETA (2) = -.063 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2207
45.000 .2077
90.000 .2160
135.000 .2212
180.000 .0000
225.000 .2139

DATE 23 JUL 76

TAPULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SR3=N ORB=N) ET

(RE4060)

ALPHA (2) = -.492 BETA (2) = -.063

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .2133
315.000 .1891

ALPHA (2) = -.532 BETA (3) = 3.956 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2140
45.000 .1898
90.000 .1199
135.000 .2754
180.000 .0000
225.000 .1133
270.000 .2113
315.000 .1611

ALPHA (3) = 4.013 BETA (1) = -.063 MACH = 1.1000 RN/L = 4.3823 PO = 2110.5 P = 988.47

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1912
45.000 .2448
90.000 .1498
135.000 .0737
180.000 .0000
225.000 .0654
270.000 .1404
315.000 .2361

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4061) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.960 BETA (1) = -.066 MACH = 1.2528 RN/L = 4.3924 PO = 2109.8 P = 811.49

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0224
45.000 .2447
90.000 .0020
135.000 .3354
180.000 .0000
225.000 .3191
270.000 -.0131
315.000 .2281

ALPHA (2) = -.505 BETA (1) = -4.075 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1872
45.000 .2942
90.000 .1160
135.000 .1633
180.000 .0000
225.000 .2037
270.000 -.0279
315.000 .2360

ALPHA (2) = -.459 BETA (2) = -.059 MACH = 1.2524 RN/L = 4.3322 PO = 2110.3 P = 812.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1485
45.000 .3325
90.000 -.0017
135.000 .3061
180.000 .0000
225.000 .2896

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 869

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4661)

ALPHA (2) = -.459 BETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0173
315.000 .3254

ALPHA (2) = -.462 BETA (3) = 3.953 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1823
45.000 .2316
90.000 -.0387
135.000 .2686
180.000 .0000
225.000 .1656
270.000 .0725
315.000 .2799

ALPHA (3) = 4.006 BETA (1) = -.063 MACH = 1.2481 RN/L = 4.3945 PO = 2110.5 P = 816.88

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2602
45.000 .3398
90.000 .0663
135.000 .1483
180.000 .0000
225.000 .1416
270.000 .0291
315.000 .3289

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 869

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G62) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.937 BETA (1) = -.069 MACH = 1.3993 RN/L = 4.2798 PO = 2114.0 P = 664.93

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0069
 45.000 .2835
 90.000 -.0312
 135.000 .2949
 180.000 .0000
 225.000 .2505
 270.000 -.0663
 315.000 .2748

ALPHA (2) = -.486 BETA (1) = -4.078 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0090
 45.000 .3858
 90.000 .0225
 135.000 .2396
 180.000 .0000
 225.000 .1430
 270.000 -.1193
 315.000 .1108

ALPHA (2) = -.486 BETA (2) = -.063 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0145
 45.000 .3257
 90.000 -.0577
 135.000 .3209
 180.000 .0000
 225.000 .2933

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4062)

ALPHA (2) = -.486 BETA (2) = -.063

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0906

315.000 .3228

ALPHA (2) = -.499 BETA (3) = 3.953 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0155

45.000 .1311

90.000 -.1018

135.000 .1701

180.000 .0000

225.000 .2313

270.000 -.0502

315.000 .3802

ALPHA (3) = 4.020 BETA (1) = -.066 MACH = 1.3960 RN/L = 4.2780 PO = 2114.0 P = 668.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0343

45.000 .3035

90.000 -.1092

135.000 .2409

180.000 .0000

225.000 .2030

270.000 -.1557

315.000 .2968

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 871

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4063) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .980

ALPHA (1) = -3.868 BETA (1) = -.063 MACH = .98020 RN/L = 4.3081 PO = 2109.8 P = 1140.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1315
45.000 -.0258
90.000 .1061
135.000 .1514
180.000 .0000
225.000 .1584
270.000 .0996
315.000 -.0385

ALPHA (2) = -.485 BETA (1) = -4.075 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1035
45.000 .0449
90.000 .1270
135.000 .0397
180.000 .0000
225.000 .1124
270.000 .0473
315.000 -.0116

ALPHA (2) = -.456 BETA (2) = -.063 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1254
45.000 .0376
90.000 .1154
135.000 .0879
180.000 .0000
225.000 .0956

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 872

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET

(RE4663)

ALPHA (2) = -.456 BETA (2) = -.063

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .1097
315.000 .0264

ALPHA (2) = -.439 BETA (3) = 3.953 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0934
45.000 -.0003
90.000 .0294
135.000 .1095
180.000 .0000
225.000 .0455
270.000 .1132
315.000 .0361

ALPHA (3) = 4.013 BETA (1) = -.069 MACH = .98150 RN/L = 4.3090 PO = 2108.4 P = 1137.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0830
45.000 .0943
90.000 .0050
135.000 -.0046
180.000 .0000
225.000 .0013
270.000 -.0007
315.000 .0829

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 873

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(PE4064) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.973 BETA (1) = -.047 MACH = .58500 RN/L = 3.4024 PO = 2096.3 P = 1662.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0404
45.000 -.1406
90.000 -.1120
135.000 .0377
180.000 .0000
225.000 .0438
270.000 -.1038
315.000 -.1399

ALPHA (2) = -.277 BETA (1) = -4.066 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0361
45.000 .0011
90.000 -.0941
135.000 .0036
180.000 .0000
225.000 -.0417
270.000 -.1036
315.000 -.2139

ALPHA (2) = -.291 BETA (2) = -.047 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0365
45.000 -.1058
90.000 -.0946
135.000 -.0151
180.000 .0000
225.000 -.0092

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 874

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G64)

ALPHA (2) = -.291 BETA (2) = -.047

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0942
315.000 -.1048

ALPHA (2) = -.307 BETA (3) = 3.972 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0365
45.000 -.2138
90.000 -.1107
135.000 -.0393
180.000 .0000
225.000 .0105
270.000 -.0874
315.000 -.0033

ALPHA (3) = 3.957 BETA (1) = -.044 MACH = .59060 RN/L = 3.4224 PO = 2098.5 P = 1657.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0165
45.000 -.0459
90.000 -.0548
135.000 -.0524
180.000 .0000
225.000 -.0578
270.000 -.0869
315.000 -.0494

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 875

ARC11-0231A80 OTS(SRB-OFF ORB-OFF)

ET

(RE4065) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

FLV-18 = 8.000 ELV-08 = -4.000
N/L = 4.250 MACH = .900

ALPHA (1) = -3.977 BETA (1) = -.044 MACH = .89350 RN/L = 4.2056 PO = 2100.6 P = 1250.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0251
45.000 -.1481
90.000 -.0113
135.000 .0844
180.000 .0000
225.000 .0923
270.000 -.0224
315.000 -.1601

ALPHA (2) = -.304 BETA (1) = -.063 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0199
45.000 -.0257
90.000 -.0161
135.000 -.0087
180.000 .0000
225.000 .0107
270.000 -.0507
315.000 -.1407

ALPHA (2) = -.314 BETA (2) = -.044 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0377
45.000 -.0831
90.000 -.0121
135.000 .0024
180.000 .0000
225.000 .0141

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 876

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4065)

ALPHA (2) = -.314 BETA (2) = -.044

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0285
315.000 -.0934

ALPHA (2) = -.317 BETA (3) = 3.972 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0142
45.000 -.1298
90.000 -.0574
135.000 .0097
180.000 .0000
225.000 .0083
270.000 -.0320
315.000 -.0287

ALPHA (3) = 3.930 BETA (1) = -.041 MACH = .89120 RN/L = 4.1708 PO = 2098.5 P = 1252.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0311
45.000 -.0225
90.000 -.0965
135.000 -.0674
180.000 .0000
225.000 -.0563
270.000 -.1118
315.000 -.0298

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 877

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G66) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = -.063 MACH = 1.0996 RN/L = 4.4015 PO = 2123.2 P = 994.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2447
45.000 .1189
90.000 .2132
135.000 .3031
180.000 .0000
225.000 .2975
270.000 .2023
315.000 .1016

ALPHA (2) = -.337 BETA (1) = -4.072 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2328
45.000 .1858
90.000 .2304
135.000 .1195
180.000 .0000
225.000 .2480
270.000 .1555
315.000 .1907

ALPHA (2) = -.334 BETA (2) = -.059 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2272
45.000 .1986
90.000 .2338
135.000 .2058
180.000 .0000
225.000 .1997

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 878

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4066)

ALPHA (2) = -.334 BETA (2) = -.059

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2244
315.000 .1809

ALPHA (2) = -.576 BETA (3) = 3.950 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2237
45.000 .2006
90.000 .1144
135.000 .2749
180.000 .0000
225.000 .1088
270.000 .2072
315.000 .1706

ALPHA (3) = 3.953 BETA (1) = -.066 MACH = 1.1032 RN/L = 4.3993 PO = 2119.0 P = 988.53

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2008
45.000 .2554
90.000 .1378
135.000 .0773
180.000 .0000
225.000 .0670
270.000 .1359
315.000 .2479

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 879

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G67) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-IB = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -.327 BETA (1) = -4.072 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1934
45.000 .2952
90.000 .1100
135.000 .1538
180.000 .0000
225.000 .2050
270.000 -.0181
315.000 .2432

ALPHA (1) = -.317 BETA (2) = -.059 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1692
45.000 .3330
90.000 .0345
135.000 .2993
180.000 .0000
225.000 .2888
270.000 .0124
315.000 .3281

ALPHA (1) = -.340 BETA (3) = 3.950 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1911
45.000 .2374
90.000 -.0347
135.000 .2645
180.000 .0000
225.000 .1535

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4067)

ALPHA (1) = -.340 BETA (3) = 3.950

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .0764
315.000 .2804

ALPHA (2) = .000 BETA (1) = -.063 MACH = 1.2510 RN/L = 4.4292 PO = 2123.9 P = 818.86

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1858
45.000 .3344
90.000 .0332
135.000 .2875
180.000 .0000
225.000 .2773
270.000 .0096
315.000 .3300

ALPHA (3) = 3.960 BETA (1) = -.066 MACH = 1.2490 RN/L = 4.4220 PO = 2123.2 P = 820.75

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2648
45.000 .3418
90.000 .0764
135.000 .1509
180.000 .0000
225.000 .1407
270.000 .0442
315.000 .3329

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G68) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.944 BETA (1) = -.059 MACH = 1.4046 RN/L = 4.3918 PO = 2123.2 P = 662.88

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0094
45.000 .2864
90.000 -.0227
135.000 .3026
180.000 .0000
225.000 .2587
270.000 -.0483
315.000 .2784

ALPHA (2) = -.320 BETA (1) = -4.072 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0118
45.000 .3942
90.000 .0070
135.000 .2399
180.000 .0000
225.000 .1470
270.000 -.1025
315.000 .1138

ALPHA (2) = -.320 BETA (2) = -.059 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0193
45.000 .3243
90.000 -.0294
135.000 .3224
180.000 .0000
225.000 .3033

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 882

ARC11-0231A80 075 (SRB=OFF ORB=OFF) ET

(RE4G68)

ALPHA (2) = -.320 BETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0723
315.000 .3238

ALPHA (2) = -.347 BETA (3) = 3.953 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0181
45.000 .1329
90.000 -.0818
135.000 .1703
180.000 .0000
225.000 .2327
270.000 -.0447
315.000 .3871

ALPHA (3) = 3.960 BETA (1) = -.063 MACH = 1.4068 RN/L = 4.3541 PO = 2121.8 P = 560.41

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0335
45.000 .2971
90.000 -.0708
135.000 .2495
180.000 .0000
225.000 .2141
270.000 -.1245
315.000 .2990

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 003

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G69) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = -4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.920 BETA (1) = -.044 MACH = .59500 RN/L = 3.4551 PO = 2109.8 P = 1660.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0545
45.000 -.1460
90.000 -.1237
135.000 .0302
180.000 .0000
225.000 .0316
270.000 -.1206
315.000 -.1515

ALPHA (2) = -.376 BETA (1) = -4.066 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0454
45.000 -.0069
90.000 -.1004
135.000 .0034
180.000 .0000
225.000 -.0485
270.000 -.1165
315.000 -.2201

ALPHA (2) = -.373 BETA (2) = -.050 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 -.0387
45.000 -.1025
90.000 -.1076
135.000 -.0108
180.000 .0000
225.000 -.0112

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4669)

ALPHA (2) = -.373 BETA (2) = -.050

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1026
315.000 -.1073

ALPHA (2) = -.426 BETA (3) = 3.969 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0457
45.000 -.2143
90.000 -.1191
135.000 -.0375
180.000 .0000
225.000 .0112
270.000 -.1020
315.000 .0006

ALPHA (3) = 3.947 BETA (1) = -.044 MACH = .59880 RN/L = 3.4697 PO = 2109.8 P = 1655.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0237
45.000 -.0506
90.000 -.0775
135.000 -.0680
180.000 .0000
225.000 -.0619
270.000 -.0980
315.000 -.0533

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS:SRB=N ORB=N) ET

(RE4G70) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 6.000 ELV-OB = -4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.897 BETA (1) = -.041 MACH = .89150 RN/L = 4.1731 PO = 2102.0 P = 1254.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0185
45.000 -.1518
90.000 -.0187
135.000 .0783
180.000 .0000
225.000 .0852
270.000 -.0283
315.000 -.1645

ALPHA (2) = -.383 BETA (1) = -4.063 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0193
45.000 -.0274
90.000 -.0192
135.000 -.0095
180.000 .0000
225.000 .0118
270.000 -.0517
315.000 -.1394

ALPHA (2) = -.357 BETA (2) = -.047 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0339
45.000 -.0876
90.000 -.0164
135.000 .0046
180.000 .0000
225.000 .0147

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G70)

ALPHA (2) = -.357 BETA (2) = -.047

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0339
315.000 -.0981

ALPHA (2) = -.370 BETA (3) = 3.972 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0043
45.000 -.1327
90.000 -.0671
135.000 .0057
180.000 .0000
225.000 -.0043
270.000 -.0427
315.000 -.0440

ALPHA (3) = 4.020 BETA (1) = -.041 MACH = .89260 RN/L = 4.1823 PO = 2101.3 P = 1252.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0258
45.000 -.0184
90.000 -.1025
135.000 -.0671
180.000 .0000
225.000 -.0576
270.000 -.1169
315.000 -.0274

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G71) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = -.066 MACH = 1.0977 RN/L = 4.3743 PO = 2107.0 P = 989.57

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2706
45.000 .1284
90.000 .2251
135.000 .3357
180.000 .0000
225.000 .3299
270.000 .2267
315.000 .1119

ALPHA (2) = -.545 BETA (1) = -4.072 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2862
45.000 .2244
90.000 .2978
135.000 .1524
180.000 .0000
225.000 .3022
270.000 .1806
315.000 .2333

ALPHA (2) = -.667 BETA (2) = -.059 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2747
45.000 .2415
90.000 .2748
135.000 .2600
180.000 .0000
225.000 .2531

ORIGINAL PAGE IS
OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4671)

ALPHA (2) = -.667 GETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2678
315.000 .2215

ALPHA (2) = -.519 BETA (3) = 3.953 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2614
45.000 .2267
90.000 .1487
135.000 .3192
180.000 .0000
225.000 .1287
270.000 .2424
315.000 .1916

ALPHA (3) = 3.990 BETA (1) = -.056 MACH = 1.1080 RN/L = 4.3708 PO = 2107.0 P = 977.00

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2442
45.000 .3170
90.000 .1680
135.000 .0904
180.000 .0000
225.000 .0800
270.000 .1529
315.000 .3062

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(R24G72) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -4.003 BETA (1) = -.066 MACH = 1.2534 RN/L = 4.4018 PO = 2110.5 P = 811.05

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0222
45.000 .2458
90.000 .0099
135.000 .3350
180.000 .0000
225.000 .3175
270.000 .0016
315.000 .2283

ALPHA (2) = -.502 BETA (1) = -4.072 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1904
45.000 .2961
90.000 .1024
135.000 .1616
180.000 .0000
225.000 .2039
270.000 -.0301
315.000 .2448

ALPHA (2) = -.528 BETA (2) = -.059 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1583
45.000 .3363
90.000 .0056
135.000 .3084
180.000 .0000
225.000 .2926

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4672)

ALPHA (2) = -.528 BETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0101
315.000 .3306

ALPHA (2) = -.538 BETA (3) = 3.953 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1952
45.000 .2311
90.000 -.0198
135.000 .2641
180.000 .0000
225.000 .1619
270.000 .0698
315.000 .2727

ALPHA (3) = 3.953 BETA (1) = -.063 MACH = 1.2505 RN/L = 4.4051 PO = 2110.5 P = 814.22

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2640
45.000 .3422
90.000 .0614
135.000 .1585
180.000 .0000
225.000 .1405
270.000 .0351
315.000 .3308

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 991

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4673) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -.522 BETA (1) = -4.072 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0115
45.000 .3899
90.000 .0137
135.000 .2459
180.000 .0000
225.000 .1443
270.000 -.1122
315.000 .1105

ALPHA (1) = -.502 BETA (2) = -.059 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0196
45.000 .3255
90.000 -.0415
135.000 .3222
180.000 .0000
225.000 .3020
270.000 -.0876
315.000 .3224

ALPHA (1) = -.535 BETA (3) = 3.953 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0168
45.000 .1338
90.000 -.0871
135.000 .1666
180.000 .0000
225.000 .2394

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 892

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4673)

ALPHA (1) = -.535 BETA (3) = 3.953

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3848

ALPHA (2) = .000 BETA (1) = -.063 MACH = 1.4118 RN/L = 4.3069 PO = 2111.9 P = 652.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0219
45.000 .3269
90.000 -.0484
135.000 .3221
180.000 .0000
225.000 .2986
270.000 -.0940
315.000 .3202

ALPHA (3) = .020 BETA (1) = -.063 MACH = 1.4046 RN/L = 4.3270 PO = 2113.3 P = 659.80

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0183
45.000 .3245
90.000 -.0581
135.000 .3155
180.000 .0000
225.000 .2963
270.000 -.0980
315.000 .3187

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4674) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.950 BETA (1) = -.009 MACH = .60200 RN/L = 3.5046 PO = 2121.1 P = 1660.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0398
45.000 -.1390
90.000 -.1101
135.000 .0399
180.000 .0000
225.000 .0439
270.000 -.1031
315.000 -.1451

ALPHA (2) = -.301 BETA (1) = -4.044 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0331
45.000 .0002
90.000 -.0883
135.000 .0012
180.000 .0000
225.000 -.0442
270.000 -.1048
315.000 -.2155

ALPHA (2) = -.287 BETA (2) = -.006 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0288
45.000 -.1033
90.000 -.0909
135.000 -.0121
180.000 .0000
225.000 -.0071

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TABULATED SOURCE DATA - 1A80

PAGE 894

DA

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4674)

LPHA (2) = -.287 BETA (2) = -.006

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
270.000
315.000

-.0903

-.1049

LPHA (2) = -.317 BETA (3) = 3.988 MACH = .60423

RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

-.0390

-.2076

-.1059

-.0390

.0000

.0089

-.0905

-.0012

LPHA (3) = 3.947 BETA (1) = -.009 MACH = .60510

RN/L = 3.5081 PO = 2121.8 P = 1656.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000
45.000
90.000
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180.000
225.000
270.000
315.000

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TABULATED SOURCE DATA - 1A80
ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

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(RE4G75) (13 JAN 75)

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = .0000 IN.
REF = 1290.3000 IN. YMRP = .0000 IN.
REF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA
ELV-1B = 8.000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.012 MACH = .90260 RN/L = 4.2512 PO = 2122.5 P = 1251.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .0310
45.000 -.1413
90.000 -.0018
135.000 .0865
180.000 .0000
225.000 .0955
270.000 -.0092
315.000 -.1515

ALPHA (2) = -.324 BETA (1) = -4.047 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .0300
45.000 -.0209
90.000 -.0023
135.000 -.0073
180.000 .0000
225.000 .0216
270.000 -.0359
315.000 -.1232

ALPHA (2) = -.317 BETA (2) = -.006 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .0494
45.000 -.0691
90.000 .0025
135.000 .0096
180.000 .0000
225.000 .0206

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DA

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4G75)

LPHA (2) = -.317 BETA (2) = -.006

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
270.000 -.0143
315.000 -.0799

LPHA (2) = -.396 BETA (3) = 3.984 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .0263
45.000 -.1017
90.000 -.0399
135.000 .0245
180.000 .0000
225.000 .0055
270.000 -.0106
315.000 -.0276

LPHA (3) = 4.076 BETA (1) = -.012 MACH = .90480 RN/L = 4.2388 PO = 2121.1 P = 1247.6

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .0367
45.000 -.0066
90.000 -.0925
135.000 -.0649
180.000 .0000
225.000 -.0551
270.000 -.0988
315.000 -.0138

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4676) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

REF = 2690.0000 SQ.FT. XMRP = .0000 IN.
REF = 1290.3000 IN. YMRP = .0000 IN.
REF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-IB = 8.000 ELV-OB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.934 BETA (1) = .009 MACH = 1.1011 RN/L = 4.4175 PO = 2123.9 P = 993.44

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .2313
45.000 .1138
90.000 .1992
135.000 .3095
180.000 .0000
225.000 .2992
270.000 .1875
315.000 .0951

ALPHA (2) = -.238 BETA (1) = -3.994 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .2234
45.000 .1832
90.000 .2556
135.000 .1190
180.000 .0000
225.000 .2470
270.000 .1469
315.000 .1834

ALPHA (2) = -.307 BETA (2) = .009 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

T/LT .3362 .8506

PHI
.000 .2143
45.000 .2124
90.000 .2205
135.000 .2183
180.000 .0000
225.000 .2083

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G76)

ALPHA (2) = -.307 BETA (2) = .009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

STAL	.3362	.8506
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PHI
270.000 .2049
315.000 .1954

ALPHA (2) = - .271 BETA (3) = 4.034 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

STAT	.3362	.8506
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PHI		
.000		.2189
45.000	.2041	
90.000		.1000
135.000	.2783	
180.000		.0000
225.000	.1089	
270.000		.2387
315.000	.1756	

LEHA (3) = 4.026 BETA (1) = .012 MACH = 1.1056 RN/L = 4.4135 P0 = 2121.8 P = 986.83

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

ITAL	.3362	.8506
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FBI		
.000		.1922
45.000	.2500	
90.000		.1563
135.000	.0763	
180.000		.0000
225.000	.0672	
270.000		.1488
315.000	.2406	

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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

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(RE4077) (13 JAN 75)

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REFERENCE DATA

PARAMETRIC DATA

REF = 2690.0000 SQ.FT. XMRP = .0000 IN.
REF = 1290.3000 IN. YMRP = .0000 IN.
REF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.881 BETA (1) = .012 MACH = 1.2507 RN/L = 4.4817 PO = 2123.2 P = 818.92

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

CT/LT .3362 .8506

PHI
.000 .0226
45.000 .2367
90.000 .0096
135.000 .3358
180.000 .0000
225.000 .3201
270.000 -.0056
315.000 .2199

ALPHA (2) = -.239 BETA (1) = -3.994 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

CT/LT .3362 .8506

PHI
.000 .1799
45.000 .2971
90.000 .1179
135.000 .1600
180.000 .0000
225.000 .2115
270.000 -.0245
315.000 .2444

ALPHA (2) = -.258 BETA (2) = .003 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

CT/LT .3362 .8506

PHI
.000 .1413
45.000 .3344
90.000 .0242
135.000 .3014
180.000 .0000
225.000 .2907

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 900

DA

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4677)

ALPHA (2) = -.258 BETA (2) = .009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

CT/LT .3362 .8506

PHI		
270.000		-.0062
315.000	.3277	

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XT

ALPHA (2) = -.281 BETA (3) = 4.031 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

CT/LT .3362 .8506

PHI		
.000		.1806
45.000	.2365	
90.000		-.0440
135.000	.2607	
180.000		.0000
225.000	.1604	
270.000		.0799
315.000	.2833	

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XT

ALPHA (3) = 3.953 BETA (1) = .016 MACH = 1.2486 RN/L = 4.4578 PO = 2122.5 P = 820.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

CT/LT .3362 .8506

PHI		
.000		.2600
45.000	.3382	
90.000		.0822
135.000	.1577	
180.000		.0000
225.000	.1425	
270.000		.0513
315.000	.3303	

AL

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XT

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 901

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G78) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.980 BETA (1) = -.065 MACH = 1.4100 RN/L = 4.3522 PO = 2122.5 P = 657.63

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0089
45.000 .2851
90.000 -.0259
135.000 .2998
180.000 .0000
225.000 .2587
270.000 -.0559
315.000 .2761

ALPHA (2) = -.239 BETA (1) = -4.072 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0127
45.000 .3906
90.000 .0186
135.000 .2400
180.000 .0000
225.000 .1483
270.000 -.1034
315.000 .1138

ALPHA (2) = -.228 BETA (2) = -.053 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0157
45.000 .3313
90.000 -.0385
135.000 .3224
180.000 .0000
225.000 .3032

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4078)

ALPHA (2) = -.228 BETA (2) = -.063

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	-.0744
315.000	.3288

ALPHA (2) = -.261 BETA (3) = 3.953 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0148
45.000	.1339
90.000	-.0867
135.000	.1707
180.000	.0000
225.000	.2320
270.000	-.0379
315.000	.3897

ALPHA (3) = 3.920 BETA (1) = -.066 MACH = 1.4043 RN/L = 4.3377 PO = 2123.2 P = 663.16

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0308
45.000	.3059
90.000	-.0757
135.000	.2535
180.000	.0000
225.000	.2170
270.000	-.1267
315.000	.3018

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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 903

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G79) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.105 BETA (1) = -.006 MACH = .59090 RN/L = 3.4170 PO = 2104.1 P = 1661.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0483
45.000 -.1419
90.000 -.1227
135.000 .0379
180.000 .0000
225.000 .0389
270.000 -.1171
315.000 -.1471

ALPHA (2) = -.383 BETA (1) = -4.047 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0444
45.000 -.0817
90.000 -.0951
135.000 .0032
180.000 .0000
225.000 -.0482
270.000 -.1165
315.000 -.2202

ALPHA (2) = -.380 BETA (2) = -.009 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0458
45.000 -.1136
90.000 -.1061
135.000 -.0181
180.000 .0000
225.000 -.0130

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4079)

ALPHA (2) = -.380 BETA (2) = -.009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1027
315.000 -.1136

ALPHA (2) = -.499 BETA (3) = 3.981 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0462
45.000 -.2100
90.000 -.1207
135.000 -.0397
180.000 .0000
225.000 .0116
270.000 -.0920
315.000 -.0024

ALPHA (3) = 3.960 BETA (1) = -.012 MACH = .59700 RN/L = 3.4428 PO = 2104.1 P = 1653.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0292
45.000 -.0470
90.000 -.0742
135.000 -.0603
180.000 .0000
225.000 -.0656
270.000 -.0992
315.000 -.0550

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G80) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
RREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.897 BETA (1) = -.009 MACH = .89640 RN/L = 4.1815 PO = 2097.1 P = 1244.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0249
45.000 -.1440
90.000 -.0115
135.000 .0804
180.000 .0000
225.000 .0879
270.000 -.0208
315.000 -.1569

ALPHA (2) = -.353 BETA (1) = -4.050 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0254
45.000 -.0267
90.000 -.0105
135.000 -.0103
180.000 .0000
225.000 .0199
270.000 -.0438
315.000 -.1271

ALPHA (2) = -.363 BETA (2) = -.009 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0390
45.000 -.0801
90.000 -.0112
135.000 .0049
180.000 .0000
225.000 .0179

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TABULATED SOURCE DATA - TAB0

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ARC11-023TAB0 OTS:SRB=N ORB=N) ET

(RE4080)

ALPHA (2) = -.363 BETA (2) = -.009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0277
315.000 -.0906

ALPHA (2) = -.519 BETA (3) = 3.981 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0228
45.000 -.1082
90.000 -.0449
135.000 .0216
180.000 .0000
225.000 .0017
270.000 -.0176
315.000 -.0343

ALPHA (3) = 3.980 BETA (1) = -.012 MACH = .89790 RN/L = 4.1840 PO = 2097.8 P = 1243.1

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0272
45.000 -.0160
90.000 -.1014
135.000 -.0647
180.000 .0000
225.000 -.0568
270.000 -.1113
315.000 -.0226

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4081) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = .012 MACH = 1.0996 RN/L = 4.3760 PO = 2105.5 P = 986.57

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2344
45.000 .1131
90.000 .2021
135.000 .3053
180.000 .0000
225.000 .2997
270.000 .1983
315.000 .0961

ALPHA (2) = -.396 BETA (1) = -3.994 MACH = 1.1021 RN/L = 4.3810 PO = 2106.0 P = 983.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2245
45.000 .1795
90.000 .2605
135.000 .1253
180.000 .0000
225.000 .2464
270.000 .1399
315.000 .1869

ALPHA (2) = -.380 BETA (2) = .009 MACH = 1.1021 RN/L = 4.3810 PO = 2106.0 P = 983.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2175
45.000 .2107
90.000 .2170
135.000 .2226
180.000 .0000
225.000 .2159

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 908

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4081)

ALPHA (2) = -.380 BETA (2) = .009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2050
315.000 .1917

ALPHA (2) = -.393 BETA (3) = 4.031 MACH = 1.1021 RN/L = 4.3810 PO = 2106.0 P = 983.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2153
45.000 .1920
90.000 .1163
135.000 .2787
180.000 .0000
225.000 .1139
270.000 .2279
315.000 .1641

ALPHA (3) = 3.894 BETA (1) = .012 MACH = 1.1031 RN/L = 4.3843 PO = 2106.2 P = 982.65

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1920
45.000 .2478
90.000 .1537
135.000 .0816
180.000 .0000
225.000 .0711
270.000 .1506
315.000 .2365

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4082) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.967 BETA (1) = .016 MACH = 1.2439 RN/L = 4.4220 PO = 2109.1 P = 820.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .0375
45.000 .2278
90.000 .0030
135.000 .3319
180.000 .0000
225.000 .3201
270.000 -.0120
315.000 .2173

ALPHA (2) = -.396 BETA (1) = -3.994 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .1813
45.000 .2935
90.000 .1145
135.000 .1645
180.000 .0000
225.000 .2044
270.000 -.0355
315.000 .2394

ALPHA (2) = -.396 BETA (2) = .009 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .1440
45.000 .3311
90.000 .0013
135.000 .3074
180.000 .0000
225.000 .2931

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GB2)

ALPHA (2) = -.395 BETA (2) = .009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0209
315.000 .3239

ALPHA (2) = -.380 BETA (3) = 4.031 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1817
45.000 .2297
90.000 -.0375
135.000 .2664
180.000 .0000
225.000 .1621
270.000 .0729
315.000 .2764

ALPHA (3) = 3.877 BETA (1) = .009 MACH = 1.2502 RN/L = 4.4099 PO = 2109.1 P = 813.99

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2604
45.000 .3406
90.000 .0626
135.000 .1603
180.000 .0000
225.000 .1478
270.000 .0278
315.000 .3298

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GB3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.983 BETA (1) = -.066 MACH = 1.4086 RN/L = 4.3187 PO = 2118.3 P = 657.67

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0103
45.000 .2834
90.000 -.0281
135.000 .2971
180.000 .0000
225.000 .2550
270.000 -.0659
315.000 .2758

ALPHA (2) = -.380 BETA (1) = -4.059 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0120
45.000 .3879
90.000 .0270
135.000 .2434
180.000 .0000
225.000 .1465
270.000 -.1164
315.000 .1113

ALPHA (2) = -.380 BETA (2) = -.059 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0150
45.000 .3233
90.000 -.0544
135.000 .3214
180.000 .0000
225.000 .2937

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G83)

ALPHA (2) = -.380 BETA (2) = -.059

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3246

ALPHA (2) = -.409 BETA (3) = 3.953 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0181
45.000 .1328
90.000 -.0958
135.000 .1688
180.000 .0000
225.000 .2363
270.000 -.0458
315.000 .3821

ALPHA (3) = 3.828 BETA (1) = .000 MACH = 1.4102 RN/L = 4.2670 PO = 2116.9 P = 655.67

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0319
45.000 .3044
90.000 -.0949
135.000 .2500
180.000 .0000
225.000 .2255
270.000 -.1453
315.000 .2980

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4684) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.953 BETA (1) = -.044 MACH = .59570 RN/L = 3.4174 PO = 2114.7 P = 1653.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0571
45.000 -.1466
90.000 -.1301
135.000 .0293
180.000 .0000
225.000 .0266
270.000 -.1304
315.000 -.1582

ALPHA (2) = -.284 BETA (1) = -4.063 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0330
45.000 .0032
90.000 -.0904
135.000 .0049
180.000 .0000
225.000 -.0392
270.000 -.1047
315.000 -.2123

ALPHA (2) = -.291 BETA (2) = -.047 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0290
45.000 -.0999
90.000 -.0897
135.000 -.0104
180.000 .0000
225.000 -.0053

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4084)

ALPHA (2) = -.291 BETA (2) = -.047

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0836
315.000 -.0982

ALPHA (2) = -.320 BETA (3) = 3.969 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0412
45.000 -.2120
90.000 -.1146
135.000 -.0391
180.000 .0000
225.000 .0063
270.000 -.0914
315.000 -.0084

ALPHA (3) = 3.973 BETA (1) = -.044 MACH = .59840 RN/L = 3.4294 PO = 2112.6 P = 1658.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .9506

PHI
.000 -.0132
45.000 -.0425
90.000 -.0640
135.000 -.0596
180.000 .0000
225.000 -.0569
270.000 -.0855
315.000 -.0466

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4085) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.937 BETA (1) = -.050 MACH = .90250 RN/L = 4.2680 PO = 2118.3 P = 1249.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0340
45.000 -.1381
90.000 .0007
135.000 .0885
180.000 .0000
225.000 .0951
270.000 -.0085
315.000 -.1501

ALPHA (2) = -.301 BETA (1) = -4.066 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0292
45.000 -.0228
90.000 -.0015
135.000 -.0059
180.000 .0000
225.000 .0218
270.000 -.0360
315.000 -.1242

ALPHA (2) = -.304 BETA (2) = -.047 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0451
45.000 -.0735
90.000 -.0024
135.000 .0070
180.000 .0000
225.000 .0189

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G85)

ALPHA (2) = -.304 BETA (2) = -.047

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0204
315.000 -.0845

ALPHA (2) = -.520 BETA (3) = 3.969 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0148
45.000 -.1182
90.000 -.0515
135.000 .0150
180.000 .0000
225.000 .0042
270.000 -.0230
315.000 -.0340

ALPHA (3) = 3.977 BETA (1) = -.044 MACH = .89910 RN/L = 4.2250 PO = 2114.7 P = 1251.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0314
45.000 -.0135
90.000 -.0938
135.000 -.0625
180.000 .0000
225.000 -.0533
270.000 -.1040
315.000 -.0210

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4086) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 2.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.013 BETA (1) = .016 MACH = 1.1058 RN/L = 4.4715 PO = 2118.3 P = 985.01

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2347
45.000 .1176
90.000 .2017
135.000 .3142
180.000 .0000
225.000 .3031
270.000 .1903
315.000 .1008

ALPHA (2) = -.304 BETA (1) = -3.991 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2230
45.000 .1838
90.000 .2559
135.000 .1194
180.000 .0000
225.000 .2446
270.000 .1366
315.000 .1879

ALPHA (2) = -.267 BETA (2) = .009 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2263
45.000 .2055
90.000 .2339
135.000 .2134
180.000 .0000
225.000 .2043

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 9.8

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4086)

ALPHA (2) = -.267 BETA (2) = .009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2158
315.000 .1880

ALPHA (2) = -.327 BETA (3) = 4.034 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2205
45.000 .2075
90.000 .1037
135.000 .2766
180.000 .0000
225.000 .1096
270.000 .2408
315.000 .1745

ALPHA (3) = 3.986 BETA (1) = .016 MACH = 1.1038 RN/L = 4.4466 PO = 2116.2 P = 986.43

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1914
45.000 .2474
90.000 .1528
135.000 .0734
180.000 .0000
225.000 .0651
270.000 .1479
315.000 .2374

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4686)

ALPHA (2) = -.267 BETA (2) = .009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2158
315.000 .1880

ALPHA (2) = -.327 BETA (3) = 4.034 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2205
45.000 .2075
90.000 .1037
135.000 .2766
180.000 .0000
225.000 .1095
270.000 .2408
315.000 .1745

ALPHA (3) = 3.986 BETA (1) = .016 MACH = 1.1038 RN/L = 4.4466 PO = 2116.2 P = 986.43

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1914
45.000 .2474
90.000 .1528
135.000 .0734
180.000 .0000
225.000 .0651
270.000 .1479
315.000 .2374

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G87) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 2.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.871 BETA (1) = -.044 MACH = .59840 RN/L = 3.4324 PO = 2111.9 P = 1657.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0486
45.000 -.1407
90.000 -.1185
135.000 .0374
180.000 .0000
225.000 .0363
270.000 -.1200
315.000 -.1462

ALPHA (2) = -.350 BETA (1) = -4.066 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0376
45.000 .0029
90.000 -.0993
135.000 .0029
180.000 .0000
225.000 -.0444
270.000 -.1113
315.000 -.2154

ALPHA (2) = -.380 BETA (2) = -.050 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0428
45.000 -.1075
90.000 -.1056
135.000 -.0190
180.000 .0000
225.000 -.0163

DATE 23 JUL 76

TABULATED SOURCE DATA - IABO

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G87)

ALPHA (2) = -.380 BETA (2) = -.050

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1062
315.000 -.1127

ALPHA (2) = -.423 BETA (3) = 3.969 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0407
45.000 -.2143
90.000 -.1132
135.000 -.0380
180.000 .0000
225.000 .0143
270.000 -.0828
315.000 -.0042

ALPHA (3) = 3.986 BETA (1) = -.047 MACH = .59740 RN/L = 3.4327 PO = 2111.2 P = 1658.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0255
45.000 -.0508
90.000 -.0741
135.000 -.0697
180.000 .0000
225.000 -.0632
270.000 -.0970
315.000 -.0529

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 921

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G88) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2622.0000 IN. FT. XMRP = .0000 IN.
LREF = 1230.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = 2.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.963 BETA (1) = -.044 MACH = .89500 RN/L = 4.1900 PO = 2107.0 P = 1252.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0226
45.000 -.1495
90.000 -.0105
135.000 .0824
180.000 .0000
225.000 .0891
270.000 -.0231
315.000 -.1602

ALPHA (2) = -.383 BETA (1) = -4.066 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0243
45.000 -.0259
90.000 -.0136
135.000 -.0099
180.000 .0000
225.000 .0152
270.000 -.0516
315.000 -.1329

ALPHA (2) = -.376 BETA (2) = -.047 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0422
45.000 -.0788
90.000 -.0069
135.000 .0063
180.000 .0000
225.000 .0129

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 922

ARC11-0231A80 OTS(SRB=N ORB=N)

ET

(RE4088)

ALPHA (2) = -.376 BETA (2) = -.047

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000

-.0247

-.0872

ALPHA (2) = -.409 BETA (3) = 3.969 MACH = .89813

RN/L = 4.1944

PO = 2106.2

P = 1247.9

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.0214

-.1155

-.0479

.0204

.0000

.0115

-.0215

-.0318

ALPHA (3) = 3.940 BETA (1) = -.044 MACH = .89700

RN/L = 4.1933

PO = 2107.0

P = 1249.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.0292

-.0148

-.0989

-.0635

.0000

-.0573

-.1130

-.0229

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 923

ARC11-0231A80 OTS(SRB=N ORB=N)

ET

(RE4089) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.970 BETA (1) = .016 MACH = 1.1009 RN/L = 4.4134 PO = 2105.5 P = 985.03

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2352
45.000 .1146
90.000 .2010
135.000 .3077
180.000 .0000
225.000 .3011
270.000 .1956
315.000 .0969

ALPHA (2) = -.436 BETA (1) = -3.994 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2282
45.000 .1813
90.000 .2618
135.000 .1266
180.000 .0000
225.000 .2459
270.000 .1401
315.000 .1931

ALPHA (2) = -.429 BETA (2) = .009 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2195
45.000 .2103
90.000 .2146
135.000 .2245
180.000 .0000
225.000 .2170

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4689)

ALPHA (2) = -.429 BETA (2) = .009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .2099

315.000 .1941

ALPHA (2) = -.466 BETA (3) = 4.031 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2209

45.000 .2005

90.000 .1213

135.000 .2788

180.000 .0000

225.000 .1105

270.000 .2392

315.000 .1684

ALPHA (3) = 3.851 BETA (1) = .012 MACH = 1.1043 RN/L = 4.4260 PO = 2112.6 P = 984.21

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1933

45.000 .2459

90.000 .1552

135.000 .0813

180.000 .0000

225.000 .0690

270.000 .1464

315.000 .2357

ORIGINAL PAGE IS
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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4690) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.960 BETA (1) = -.003 MACH = .59840 RN/L = 3.4955 PO = 2121.1 P = 1665.1
SECTION (1) EXTERNAL TANK
DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0473
45.000 -.1415
90.000 -.1156
135.000 .0339
180.000 .0000
225.000 .0396
270.000 -.1105
315.000 -.1715

ALPHA (2) = -.267 BETA (1) = -4.003 MACH = .59907 RN/L = 3.4936 PO = 2121.1 P = 1664.2
SECTION (1) EXTERNAL TANK
DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0361
45.000 -.0001
90.000 -.0928
135.000 .0054
180.000 .0000
225.000 -.0391
270.000 -.1053
315.000 -.2133

ALPHA (2) = -.291 BETA (2) = .012 MACH = .59907 RN/L = 3.4936 PO = 2121.1 P = 1664.2
SECTION (1) EXTERNAL TANK
DEPENDENT VARIABLE CP

XT/LT .3352 .8506

PHI
.000 .0312
45.000 -.0991
90.000 -.0916
135.000 -.0123
180.000 .0000
225.000 -.0092

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4090)

ALPHA (2) = -.291 BETA (2) = .012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0937
315.000 -.1068

ALPHA (2) = -.294 BETA (3) = 4.028 MACH = .59907

RN/L = 3.4936 PO = 2121.1 P = 1654.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0422
45.000 -.2138
90.000 -.1137
135.000 -.0411
180.000 .0000
225.000 .0074
270.000 -.0920
315.000 -.0032

ALPHA (3) = 3.973 BETA (1) = .005 MACH = .59860

RN/L = 3.4896 PO = 2121.1 P = 1654.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0164
45.000 -.0456
90.000 -.0642
135.000 -.0622
180.000 .0000
225.000 -.0615
270.000 -.0937
315.000 -.0510

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4091) (13 JAN 75)

REFERENCE DATA

GREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
RREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-OB = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.003 MACH = .90430 RN/L = 4.2125 PO = 2104.8 P = 1238.7

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0348
45.000 -.1366
90.000 .0047
135.000 .0907
180.000 .0000
225.000 .0974
270.000 -.0079
315.000 -.1504

ALPHA (2) = -.267 BETA (1) = -4.003 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0342
45.000 -.0175
90.000 .0051
135.000 -.0055
180.000 .0000
225.000 .0264
270.000 -.0323
315.000 -.1141

ALPHA (2) = -.291 BETA (2) = .012 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0373
45.000 -.0826
90.000 -.0089
135.000 -.0005
180.000 .0000
225.000 .0104

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4091)

ALPHA (2) = -.291 BETA (2) = .012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0306

315.000 -.0937

ALPHA (2) = -.284 BETA (3) = 4.028 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0240

45.000 -.1098

90.000 -.0421

135.000 .0200

180.000 .0000

225.000 .0051

270.000 -.0194

315.000 -.0244

ALPHA (3) = 3.970 BETA (1) = -.003 MACH = .90050 RN/L = 4.1955 PO = 2102.7 P = 1242.6

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0334

45.000 -.0117

90.000 -.0928

135.000 -.0639

180.000 .0000

225.000 -.0547

270.000 -.1014

315.000 -.0189

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4692) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 4.000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .003 MACH = 1.0978 RN/L = 4.3356 PO = 2110.5 P = 991.11

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI
.000 .2326
45.000 .1112
90.000 .2029
135.000 .3043
180.000 .0000
225.000 .2980
270.000 .1952
315.000 .0942

ALPHA (2) = -.284 BETA (1) = -3.994 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI
.000 .2184
45.000 .1802
90.000 .2468
135.000 .1184
180.000 .0000
225.000 .2456
270.000 .1417
315.000 .1839

ALPHA (2) = -.281 BETA (2) = .000 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI
.000 .2179
45.000 .2080
90.000 .2281
135.000 .2139
180.000 .0000
225.000 .2021

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 930

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4092)

ALPHA (2) = -.281 BETA (2) = .000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2097
315.000 .1899

ALPHA (2) = -.320 BETA (3) = 4.028 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2149
45.000 .1960
90.000 .1030
135.000 .2765
180.000 .0000
225.000 .1054
270.000 .2246
315.000 .1709

ALPHA (3) = 3.977 BETA (1) = .003 MACH = 1.0998 RN/L = 4.3390 PO = 2109.8 P = 988.41

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1900
45.000 .2437
90.000 .1580
135.000 .0780
180.000 .0000
225.000 .0568
270.000 .1466
315.000 .2349

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80
ARC11-023IA80 OTS(SRB=OFF ORB=OFF)

PAGE 931

(RE4093) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMPP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .005 MACH = 1.2528 RN/L = 4.3463 PO = 2110.5 P = 811.76

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0150
45.000 .2408
90.000 .0031
135.000 .3375
180.000 .0000
225.000 .3202
270.000 -.0082
315.000 .2227

ALPHA (2) = -.239 BETA (1) = -3.997 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1804
45.000 .2977
90.000 .1035
135.000 .1596
180.000 .0000
225.000 .2062
270.000 -.0293
315.000 .2395

ALPHA (2) = -.231 BETA (2) = .000 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1404
45.000 .3357
90.000 .0228
135.000 .3025
180.000 .0000
225.000 .2933

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 932

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4093)

ALPHA (2) = -.231 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0091
315.000 .3279

ALPHA (2) = -.284 BETA (3) = 4.034 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1785
45.000 .2307
90.000 -.0432
135.000 .2551
180.000 .0000
225.000 .1575
270.000 .0789
315.000 .2831

ALPHA (3) = 3.977 BETA (1) = .000 MACH = 1.2524 RN/L = 4.3409 PO = 2110.5 P = 812.19

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2592
45.000 .3420
90.000 .0911
135.000 .1640
180.000 .0000
225.000 .1480
270.000 .0427
315.000 .3314

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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4694) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP =
LREF = 1290.3000 IN. YMRP =
BREF = 1290.3000 IN. ZMRP =
SCALE = .0200

.0000 IN.
.0000 IN.
.0000 IN.

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.887 BETA (1) = .016 MACH = 1.4070 RN/L = 4.3762 PO = 2135.2 P = 664.38

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0117
45.000 .2878
90.000 -.0254
135.000 .3054
180.000 .0000
225.000 .2624
270.000 -.0535
315.000 .2782

ALPHA (2) = -.271 BETA (1) = -3.991 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0148
45.000 .3941
90.000 .0235
135.000 .2391
180.000 .0000
225.000 .1537
270.000 -.0993
315.000 .1175

ALPHA (2) = -.251 BETA (2) = .009 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0198
45.000 .3350
90.000 -.0399
135.000 .3259
180.000 .0000
225.000 .3057

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G94)

ALPHA (2) = -.251 BETA (2) = .009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI

270.000 -.0674

315.000 .3331

ALPHA (2) = -.284 BETA (3) = 4.031 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 562.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI

.000 .0231

45.000 .1434

90.000 -.0851

135.000 .1799

180.000 .0000

225.000 .2332

270.000 -.0325

315.000 .3908

ALPHA (3) = 3.973 BETA (1) = .005 MACH = 1.3992 RN/L = 4.3323 PO = 2123.9 P = 665.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8505

PHI

.000 .0332

45.000 .3055

90.000 -.0792

135.000 .2465

180.000 .0000

225.000 .2101

270.000 -.1290

315.000 .3004

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS:SRB=N ORB=N) ET

(RE4095) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.960 BETA (1) = .006 MACH = .58310 RN/L = 3.4103 PO = 2111.9 P = 1677.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0637
45.000 -.1471
90.000 -.1318
135.000 .0291
180.000 .0000
225.000 .0288
270.000 -.1272
315.000 -.1556

ALPHA (2) = -.297 BETA (1) = -4.003 MACH = .59743 RN/L = 3.4571 PO = 2111.9 P = 1659.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0395
45.000 -.0014
90.000 -.0346
135.000 .0034
180.000 .0000
225.000 -.0447
270.000 -.1151
315.000 -.2121

ALPHA (2) = -.307 BETA (2) = .012 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0382
45.000 -.1083
90.000 -.0364
135.000 -.0174
180.000 .0000
225.000 -.0086

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G95)

ALPHA (2) = -.307 BETA (2) = .012

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0916
315.000 -.1039

ALPHA (2) = -.376 BETA (3) = 4.022 MACH = .59743 RN/L = 3.4571 PO = 2111.9 P = 1659.1

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0464
45.000 -.2160
90.000 -.1217
135.000 -.0416
180.000 .0000
225.000 .0083
270.000 -.0970
315.000 -.0038

ALPHA (3) = 4.020 BETA (1) = -.003 MACH = .60100 RN/L = 3.4818 PO = 2111.9 P = 1654.5

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0190
45.000 -.0478
90.000 -.0687
135.000 -.0644
180.000 .0000
225.000 -.0630
270.000 -.0928
315.000 -.0501

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 937

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4096) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LPEF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 4.000 ELV-OB = 4.000
FN/L = 4.250 MACH = .900

ALPHA (1) = -3.891 BETA (1) = -.003 MACH = .90360 RN/L = 4.2068 PO = 2106.2 P = 1240.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0359
45.000 -.1347
90.000 .0045
135.000 .0892
180.000 .0000
225.000 .0956
270.000 -.0100
315.000 -.1479

ALPHA (2) = -.420 BETA (1) = -4.003 MACH = .89957 RN/L = 4.1991 PO = 2105.5 P = 1245.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0267
45.000 -.0226
90.000 -.0041
135.000 -.0083
180.000 .0000
225.000 .0205
270.000 -.0438
315.000 -.1263

ALPHA (2) = -.350 BETA (2) = .012 MACH = .89957 RN/L = 4.1991 PO = 2105.5 P = 1245.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0396
45.000 -.0827
90.000 -.0083
135.000 .0021
180.000 .0000
225.000 .0133

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 938

ARC11-0231A80 OTS(SRB=N ORB=N)

ET

(RE4096)

ALPHA (2) = -.360 BETA (2) = .012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0323
315.000 -.0914

ALPHA (2) = -.406 BETA (3) = 4.031 MACH = .89957

RN/L = 4.1991

PO = 2105.5

P = 1245.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0235
45.000 -.1072
90.000 -.0400
135.000 .0232
180.000 .0000
225.000 .0079
270.000 -.0189
315.000 -.0285

ALPHA (3) = 3.986 BETA (1) = -.003 MACH = .90050

RN/L = 4.1971

PO = 2105.5

P = 1244.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0350
45.000 -.0117
90.000 -.0946
135.000 -.0609
180.000 .0000
225.000 -.0491
270.000 -.0298
315.000 -.0193

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 939

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G97) (13 JAN 75)

REFERENCE DATA

SREF = 2190.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.0000 IN. YMRP = .0000 IN.
BREF = 1290.0000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = .003 MACH = 1.0995 RN/L = 4.3360 PO = 2105.5 P = 986.72

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2353
45.000 .1139
90.000 .2040
135.000 .3056
180.000 .0000
225.000 .3314
270.000 .2009
315.000 .0984

ALPHA (2) = -.409 BETA (1) = -3.997 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2201
45.000 .1782
90.000 .2500
135.000 .1276
180.000 .0000
225.000 .2471
270.000 .1395
315.000 .1850

ALPHA (2) = -.326 BETA (2) = -.003 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2199
45.000 .2075
90.000 .2234
135.000 .2222
180.000 .0000
225.000 .2144

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 940

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4G97)

ALPHA (2) = -.385 BETA (2) = -.003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .2098

315.000 .1899

ALPHA (2) = -.429 BETA (3) = 4.028 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2169

45.000 .1927

90.000 .1221

135.000 .2795

180.000 .0000

225.000 .1154

270.000 .2208

315.000 .1677

ALPHA (3) = 4.033 BETA (1) = -.003 MACH = 1.0997 RN/L = 4.3440 PO = 2106.2 P = 986.87

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1905

45.000 .2436

90.000 .1515

135.000 .0756

180.000 .0000

225.000 .0688

270.000 .430

315.000 .0339

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4098) (13 JAN 75)

REFERENCE DATA

SRFF = 2690.0000 SQ.FT. XMPP = .0000 IN.
 LRFF = 1290.3000 IN. YMPP = .0000 IN.
 BRFF = 1290.3000 IN. ZMPP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.973 BETA (1) = .003 MACH = 1.2526 RN/L = 4.3420 PO = 2108.4 P = 811.19

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0276
 45.000 .2391
 90.000 .0042
 135.000 .3397
 180.000 .0000
 225.000 .3225
 270.000 -.0116
 315.000 .2239

ALPHA (2) = -.482 BETA (1) = -3.994 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .1817
 45.000 .2941
 90.000 .1107
 135.000 .1642
 180.000 .0000
 225.000 .2051
 270.000 -.0373
 315.000 .2440

ALPHA (2) = -.439 BETA (2) = -.003 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .1493
 45.000 .3317
 90.000 .0007
 135.000 .2072
 180.000 .0000
 225.000 .2931

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 942

ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4098)

ALPHA (2) = -.439 BETA (2) = -.003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

X1/XT .3362 .8506

PHI	
270.000	-.0224
315.000	.3252

ALPHA (2) = -.416 BETA (3) = 4.028 MACH = 1.2535 PN/L = 4.3392 PO = 2107.9 P = 609.98

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

X1/XT .3362 .8506

PHI	
.000	.1880
45.000	.2285
90.000	-.0439
135.000	.2605
180.000	.0000
225.000	.1624
270.000	.0668
315.000	.2787

ALPHA (3) = 4.020 BETA (1) = .003 MACH = 1.2508 PN/L = 4.3353 PO = 2107.7 P = 812.82

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

X1/XT .3362 .8506

PHI	
.000	.2650
45.000	.3384
90.000	.0641
135.000	.1635
180.000	.0000
225.000	.1430
270.000	.0311
315.000	.3274

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80
ARC11-0231A80 OTS(SRB=N ORB=N) ET

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(RE4099) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.944 BETA (1) = .009 MACH = 1.4093 RN/L = 4.2699 PO = 2108.4 P = 653.90

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0115
45.000 .2974
90.000 -.0270
135.000 .3026
180.000 .0000
225.000 .2572
270.000 -.0630
315.000 .2809

ALPHA (2) = -.403 BETA (1) = -3.991 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.36

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0145
45.000 .3893
90.000 .0308
135.000 .2474
180.000 .0000
225.000 .1505
270.000 -.1126
315.000 .1152

ALPHA (2) = -.386 BETA (2) = .012 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.36

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0181
45.000 .3289
90.000 -.0494
135.000 .7253
180.000 .0000
225.000 .3000

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

PAGE 944

ARC11-023IA80 OTS(SRB=N ORB=N) ET

(RE4G99)

ALPHA (2) = -.386 BETA (2) = .012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 -.0881

315.000 .3276

ALPHA (2) = -.443 BETA (3) = 4.034 MACH = 1.4102 RN/L = 4.2 15 PO = 2109.3 P = 653.36

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0214

45.000 .1566

90.000 -.0915

135.000 .1700

180.000 .0000

225.000 .2459

270.000 -.0411

315.000 .3862

ALPHA (3) = 3.864 BETA (1) = .012 MACH = 1.4084 RN/L = 4.2570 PO = 2109.1 P = 654.92

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .0326

45.000 .0058

90.000 -.0936

135.000 .2575

180.000 .0000

225.000 .2839

270.000 -.1485

315.000 .000-

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4G40) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMPP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.894 BETA (1) = .000 MACH = .60180 RN/L = 3.5043 PO = 2121.1 P = 1660.6

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/XT .3362 .8506

PHI
.000 -1.0405
45.000 -.1371
90.000 -.1102
135.000 .0403
180.000 .0000
225.000 .0403
270.000 -.1059
315.000 -.1428

ALPHA (2) = -.281 BETA (1) = -4.003 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/XT .3362 .8506

PHI
.000 -1.0327
45.000 .0000
90.000 -.0941
135.000 .0075
180.000 .0000
225.000 -.0412
270.000 -.1056
315.000 -.2140

ALPHA (2) = -.267 BETA (2) = .012 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/XT .3362 .8506

PHI
.000 -1.0603
45.000 -.0955
90.000 -.0944
135.000 -.0102
180.000 .0000
225.000 -.0062

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4GA0)

ALPHA (2) = -.287 BETA (2) = .012

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0997
315.000 -.1050

ALPHA (2) = -.301 BETA (3) = 4.028 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0432
45.000 -.2170
90.000 -.1192
135.000 -.0473
180.000 .0000
225.000 .0021
270.000 -.0946
315.000 -.0071

ALPHA (3) = 3.985 BETA (1) = .012 MACH = .59790 RN/L = 3.4847 PO = 2122.5 P = 1666.8

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0177
45.000 -.0452
90.000 -.0714
135.000 -.0522
180.000 .0000
225.000 -.0502
270.000 -.0931
315.000 -.0503

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 947

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4GA1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.996 BETA (1) = .009 MACH = .89940 RN/L = 4.2300 PO = 2121.8 P = 1255.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0295
45.000 -.1428
90.000 -.0030
135.000 .0886
180.000 .0000
225.000 .0928
270.000 -.0138
315.000 -.1550

ALPHA (2) = -.281 BETA (1) = -4.006 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0302
45.000 -.0189
90.000 .0001
135.000 -.0091
180.000 .0000
225.000 .0204
270.000 -.0348
315.000 -.1208

ALPHA (2) = -.284 BETA (2) = .009 MACH = .90087 RN/L = 4.2392 PO = 2122.0 P = 1253.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0424
45.000 -.0733
90.000 -.0030
135.000 .0044
180.000 .0000
225.000 .0158

ORIGINAL PAGE IS
OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF)

ET

(RE4GA1)

ALPHA (2) = -.284 BETA (2) = .009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
270.000	-.0222
315.000	-.0854

ALPHA (2) = -.281 BETA (3) = 4.028 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0188
45.000	-.1145
90.000	-.0495
135.000	.0172
180.000	.0000
225.000	.0022
270.000	-.0178
315.000	-.0305

ALPHA (3) = 4.023 BETA (1) = .016 MACH = .90100 RN/L = 4.2328 PO = 2121.8 P = 1253.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI	
.000	.0326
45.000	-.0094
90.000	-.0963
135.000	-.0605
180.000	.0000
225.000	-.0531
270.000	-.1060
315.000	-.0205

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RENGA2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0000

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .006 MACH = 1.0986 RN/L = 4.3563 PO = 2114.0 P = 991.79

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2340
45.000 .1120
90.000 .2059
135.000 .3051
180.000 .0000
225.000 .3005
270.000 .2004
315.000 .0955

ALPHA (2) = -.284 BETA (1) = -4.003 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2178
45.000 .1790
90.000 .2494
135.000 .1173
180.000 .0000
225.000 .2457
270.000 .1417
315.000 .1848

ALPHA (2) = -.258 BETA (2) = -.012 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 999.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2142
45.000 .2116
90.000 .2242
135.000 .2182
180.000 .0000
225.000 .2096

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET

(RE4GA2)

ALPHA (2) = -.258 BETA (2) = -.012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .2076
315.000 .1937

ALPHA (2) = -.301 BETA (3) = 4.016 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .2119
45.000 .1936
90.000 .1044
135.000 .2743
180.000 .0000
225.000 .1057
270.000 .2226
315.000 .1685

ALPHA (3) = 3.947 BETA (1) = .000 MACH = 1.1030 RN/L = 4.3633 PO = 2114.0 P = 985.41

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1899
45.000 .2465
90.000 .1565
135.000 .0791
180.000 .0000
225.000 .0680
270.000 .1452
315.000 .2366

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4GA3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.947 BETA (1) = -.006 MACH = 1.2545 RN/L = 4.3671 PO = 2114.0 P = 811.27

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0115
 45.000 .2441
 90.000 .0095
 135.000 .3399
 180.000 .0000
 225.000 .3219
 270.000 -.0086
 315.000 .2260

ALPHA (2) = -.248 BETA (1) = -4.000 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .1799
 45.000 .3006
 90.000 .1100
 135.000 .1627
 180.000 .0000
 225.000 .2075
 270.000 -.0323
 315.000 .2457

ALPHA (2) = -.244 BETA (2) = -.006 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .1407
 45.000 .3369
 90.000 .0203
 135.000 .3038
 180.000 .0000
 225.000 .2869

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4GA3)

ALPHA (2) = -.244 BETA (2) = -.006

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3282

ALPHA (2) = -.271 BETA (3) = 4.022 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1774
45.000 .2342
90.000 -.0513
135.000 .2631
180.000 .0000
225.000 .1568
270.000 .0692
315.000 .2824

ALPHA (3) = 3.986 BETA (1) = .003 MACH = 1.2546 RN/L = 4.3551 PO = 2114.0 P = 811.12

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2617
45.000 .3436
90.000 .0688
135.000 .1634
180.000 .0000
225.000 .1459
270.000 .0378
315.000 .3331

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 953

ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4GA4) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.947 BETA (1) = .006 MACH = 1.4033 RN/L = 4.3439 PO = 2107.0 P = 659.02

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0091
 45.000 .2839
 90.000 -.0290
 135.000 .2988
 180.000 .0000
 225.000 .2599
 270.000 -.0570
 315.000 .2730

ALPHA (2) = -.267 BETA (1) = -3.994 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0097
 45.000 .3895
 90.000 .0188
 135.000 .2377
 180.000 .0000
 225.000 .1457
 270.000 -.1052
 315.000 .1104

ALPHA (2) = -.277 BETA (2) = -.003 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0137
 45.000 .3282
 90.000 -.0450
 135.000 .3201
 180.000 .0000
 225.000 .2993

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET

(RE4GA4)

ALPHA (2) = -.277 BETA (2) = -.003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8706

PHI
270.000 -.0763
315.000 .3254

ALPHA (2) = -.284 BETA (3) = 4.019 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0162
45.000 .1346
90.000 -.0907
135.000 .1748
180.000 .0000
225.000 .2303
270.000 -.0389
315.000 .3869

ALPHA (3) = 3.986 BETA (1) = .006 MACH = 1.3970 RN/L = 4.2777 PO = 2085.7 P = 658.16

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0315
45.000 .3039
90.000 -.0809
135.000 .2439
180.000 .0000
225.000 .2089
270.000 -.1355
315.000 .2977

ORIGINAL PAGE IS
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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE40A5) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.983 BETA (1) = .012 MACH = .59900 RN/L = 3.4730 PO = 2113.3 P = 1658.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0582
45.000 -.1470
90.000 -.1287
135.000 .0344
180.000 .0000
225.000 .0357
270.000 -.1317
315.000 -.1559

ALPHA (2) = -.337 BETA (1) = -4.006 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0423
45.000 -.0014
90.000 -.0928
135.000 .0007
180.000 .0000
225.000 -.0454
270.000 -.1136
315.000 -.2088

ALPHA (2) = -.370 BETA (2) = .009 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0490
45.000 -.1067
90.000 -.1077
135.000 -.0195
180.000 .0000
225.000 -.0114

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GA5)

ALPHA (2) = -.370 BETA (2) = .009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1084
315.000 -.1107

ALPHA (2) = -.453 BETA (3) = 4.025 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0482
45.000 -.2142
90.000 -.1236
135.000 -.0404
180.000 .0000
225.000 .0098
270.000 -.1008
315.000 -.0055

ALPHA (3) = 3.910 BETA (1) = .009 MACH = .60100 RN/L = 3.4798 PO = 2112.6 P = 1655.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0278
45.000 -.0507
90.000 -.0778
135.000 -.0687
180.000 .0000
225.000 -.0599
270.000 -.0981
315.000 -.0501

DATE 23 JUL 76

TABULATED SOURCE DATA - IABO

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ARC11-023IABO OTS(SRB=N ORB=N) ET

(RE4GAS) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BPREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.937 BETA (1) = .016 MACH = .90250 RN/L = 4.2121 PO = 2111.9 P = 1245.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0321
 45.000 -.1372
 90.000 -.0001
 135.000 .0842
 180.000 .0000
 225.000 .0941
 270.000 -.0102
 315.000 -.1488

ALPHA (2) = -.376 BETA (1) = -4.006 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1236.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0343
 45.000 -.0212
 90.000 .0057
 135.000 -.0100
 180.000 .0000
 225.000 .0279
 270.000 -.0322
 315.000 -.1136

ALPHA (2) = -.353 BETA (2) = .009 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1236.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
 .000 .0488
 45.000 -.0687
 90.000 .0031
 135.000 .0098
 180.000 .0000
 225.000 .0227

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GA6)

ALPHA (2) = -.353 BETA (2) = .009

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0157
315.000 -.0774

ALPHA (2) = -.420 BETA (3) = 4.022 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1235.2

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0304
45.000 -.0932
90.000 -.0351
135.000 .0316
180.000 .0000
225.000 .0019
270.000 -.0007
315.000 -.0278

ALPHA (3) = 3.910 BETA (1) = .006 MACH = .91060 RN/L = 4.2296 PO = 2111.9 P = 1234.3

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0369
45.000 -.0012
90.000 -.0913
135.000 -.0593
180.000 .0000
225.000 -.0490
270.000 -.1501
315.000 -.0091

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-0231AB0 OTS(SRB=N ORB=N) ET

(RE4GA7) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XM RP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.996 BETA (1) = .006 MACH = 1.0997 RN/L = 4.3565 PO = 2107.7 P = 987.56

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2326
45.000 .1141
90.000 .2000
135.000 .3070
180.000 .0000
225.000 .2988
270.000 .2002
315.000 .0977

ALPHA (2) = -.416 BETA (1) = -4.003 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 988.07

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2200
45.000 .1773
90.000 .2569
135.000 .1218
180.000 .0000
225.000 .2460
270.000 .1388
315.000 .1846

ALPHA (2) = -.403 BETA (2) = -.012 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 988.07

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2193
45.000 .2066
90.000 .2213
135.000 .2208
180.000 .0000
225.000 .2114

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GA7)

ALPHA (2) = -.403 BETA (2) = -.012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2068
315.000 .1882

ALPHA (2) = -.426 BETA (3) = 4.019 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 988.07

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2140
45.000 .1881
90.000 .1189
135.000 .2795
180.000 .0000
225.000 .1142
270.000 .2194
315.000 .1641

ALPHA (3) = 3.798 BETA (1) = .009 MACH = 1.0994 RN/L = 4.3619 PO = 2107.7 P = 987.85

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1918
45.000 .2414
90.000 .1565
135.000 .0810
180.000 .0000
225.000 .0721
270.000 .1458
315.000 .2322

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 DIS(SRB=N ORB=N) ET

(RE40A8) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.986 BETA (1) = .009 MACH = 1.2550 RN/L = 4.3537 PO = 2109.1 P = 808.83

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0210
45.000 .2423
90.000 -.0013
135.000 .3395
180.000 .0000
225.000 .3189
270.000 -.0139
315.000 .2271

ALPHA (2) = -.400 BETA (1) = -4.003 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1833
45.000 .2951
90.000 .1086
135.000 .1667
180.000 .0000
225.000 .2064
270.000 -.0409
315.000 .2440

ALPHA (2) = -.393 BETA (2) = -.012 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1479
45.000 .3323
90.000 .0002
135.000 .3069
180.000 .0000
225.000 .2934

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GA8)

ALPHA (2) = -.393 BETA (2) = -.012

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3254

ALPHA (2) = -.413 BETA (3) = 4.022 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1865
45.000 .2324
90.000 -.0324
135.000 .2629
180.000 .0000
225.000 .1611
270.000 .0739
315.000 .2737

ALPHA (3) = 3.947 BETA (1) = .003 MACH = 1.2539 RN/L = 4.3574 PO = 2109.1 P = 810.01

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2626
45.000 .3436
90.000 .0579
135.000 .1648
180.000 .0000
225.000 .1475
270.000 .0302
315.000 .3327

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GAS) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.940 BETA (1) = .009 MACH = 1.4085 RN/L = 4.2899 PO = 2110.5 P = 655.32

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0107
45.000 .2845
90.000 -.0301
135.000 .2998
180.000 .0000
225.000 .2557
270.000 -.0637
315.000 .2776

ALPHA (2) = -.449 BETA (1) = -3.997 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0119
45.000 .3884
90.000 .0272
135.000 .2449
180.000 .0000
225.000 .1487
270.000 -.1138
315.000 .1147

ALPHA (2) = -.380 BETA (2) = -.006 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0149
45.000 .3257
90.000 -.0532
135.000 .3222
180.000 .0000
225.000 .2978

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET

(RE4GA9)

ALPHA (2) = -.380 BETA (2) = -.006

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0899
315.000 .3252

ALPHA (2) = -.443 BETA (3) = 4.025 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0202
45.000 .1349
90.000 -.0931
135.000 .1684
180.000 .0000
225.000 .2404
270.000 -.0466
315.000 .3847

ALPHA (3) = 3.821 BETA (1) = .006 MACH = 1.4060 RN/L = 4.2706 PO = 2109.8 P = 657.37

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0303
45.000 .3039
90.000 -.1019
135.000 .2555
180.000 .0000
225.000 .2205
270.000 -.1500
315.000 .2987

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB0) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.013 BETA (1) = .006 MACH = .60070 RN/L = 3.5069 PO = 2116.2 P = 1658.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0517
45.000 -.1401
90.000 -.1208
135.000 .0404
180.000 .0000
225.000 .0411
270.000 -.1226
315.000 -.1405

ALPHA (2) = -.271 BETA (1) = -4.006 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0539
45.000 -.0075
90.000 -.1102
135.000 -.0024
180.000 .0000
225.000 -.0512
270.000 -.1320
315.000 -.2224

ALPHA (2) = -.310 BETA (2) = .003 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0438
45.000 -.1059
90.000 -.1033
135.000 -.0102
180.000 .0000
225.000 -.0092

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB0)

ALPHA (2) = -.310 BETA (2) = .003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1019
315.000 -.1053

ALPHA (2) = -.310 BETA (3) = 4.025 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0547
45.000 -.2150
90.000 -.1337
135.000 -.0414
180.000 .0000
225.000 .0055
270.000 -.1053
315.000 -.0065

ALPHA (3) = 3.930 BETA (1) = .009 MACH = .59910 RN/L = 3.4923 PO = 2115.4 P = 1659.7

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0302
45.000 -.0502
90.000 -.0828
135.000 -.0621
180.000 .0000
225.000 -.0611
270.000 -.1032
315.000 -.0533

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.069 BETA (1) = .009 MACH = .90080 RN/L = 4.2148 PO = 2109.8 P = 1246.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0272
45.000 -.1440
90.000 -.0055
135.000 .0845
180.000 .0000
225.000 .0911
270.000 -.0169
315.000 -.1566

ALPHA (2) = -.304 BETA (1) = -4.006 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0275
45.000 -.0267
90.000 .0010
135.000 -.0100
180.000 .0000
225.000 .0203
270.000 -.0441
315.000 -.1233

ALPHA (2) = -.317 BETA (2) = .003 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0482
45.000 -.0691
90.000 .0042
135.000 .0111
180.000 .0000
225.000 .0218

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB1)

ALPHA (2) = -.317 BETA (2) = .003

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000

-.0174

-.0772

ALPHA (2) = -.357 BETA (3) = 4.025 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.0217

-.1071

-.0442

.0229

.0000

.0028

-.0218

-.0304

ALPHA (3) = 3.986 BETA (1) = .019 MACH = .90670 RN/L = 4.2222 PO = 2109.8 P = 1238.4

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000
45.000
90.000
135.000
180.000
225.000
270.000
315.000

.0333

-.0078

-.0909

-.0633

.0000

-.0538

-.1072

-.0145

ORIGINAL PAGE IS
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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUTLET

(RE4GB2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.973 BETA (1) = -.009 MACH = 1.0946 RN/L = 4.3814 PO = 2106.2 P = 993.13

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2302
45.000 .1098
90.000 .2011
135.000 .3017
180.000 .0000
225.000 .2979
270.000 .2006
315.000 .0921

ALPHA (2) = -.393 BETA (1) = -4.006 MACH = 1.0958 RN/L = 4.3823 PO = 2105.7 P = 991.34

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2209
45.000 .1779
90.000 .2573
135.000 .1220
180.000 .0000
225.000 .2457
270.000 .1394
315.000 .1856

ALPHA (2) = -.340 BETA (2) = -.016 MACH = 1.0958 RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2181
45.000 .1980
90.000 .2211
135.000 .2130
180.000 .0000
225.000 .2050

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 970

ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB2)

ALPHA (2) = -.340 BETA (2) = -.016

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2159
315.000 .1797

ALPHA (2) = -.357 BETA (3) = 4.016 MACH = 1.0958 RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2080
45.000 .1860
90.000 .1134
135.000 .2788
180.000 .0000
225.000 .1111
270.000 .2116
315.000 .1613

ALPHA (3) = 4.026 BETA (1) = -.016 MACH = 1.1011 RN/L = 4.3891 PO = 2106.2 P = 985.19

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1923
45.000 .2445
90.000 .1550
135.000 .0785
180.000 .0000
225.000 .0716
270.000 .1426
315.000 .2359

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.947 BETA (1) = -.003 MACH = 1.2463 RN/L = 4.4021 PO = 2107.0 P = 817.37

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .0421
45.000 .2328
90.000 .0047
135.000 .3366
180.000 .0000
225.000 .3210
270.000 -.0080
315.000 .2186

ALPHA (2) = -.400 BETA (1) = -4.000 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .1934
45.000 .2877
90.000 .1364
135.000 .1627
180.000 .0000
225.000 .2114
270.000 -.0098
315.000 .2475

ALPHA (2) = -.370 BETA (2) = -.009 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .1562
45.000 .3276
90.000 .0050
135.000 .3032
180.000 .0000
225.000 .2914

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB3)

ALPHA (2) = -.370 BETA (2) = -.009

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0220
315.000 .3211

ALPHA (2) = -.420 BETA (3) = 4.019 MACH = 1.2440 RN/L = 4.3952 PO = 2107.0 P = 819.92

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1917
45.000 .2394
90.000 -.0260
135.000 .2617
180.000 .0000
225.000 .1574
270.000 .0903
315.000 .2595

ALPHA (3) = 3.986 BETA (1) = -.012 MACH = 1.2457 RN/L = 4.4005 PO = 2107.7 P = 818.39

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2633
45.000 .3370
90.000 .3705
135.000 .1585
180.000 .0000
225.000 .1407
270.000 .0000
315.000 .3278

ATED SOURCE DATA - 1A80

PAGE 973

80 OTS(SRB=N ORB NO.2 OUT)ET

(RE4GB4) (13 JAN 75)

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

MACH = 1.4002 RN/L = 4.3550 PO = 2109.8 P = 662.79
DEPENDENT VARIABLE CP

MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22
DEPENDENT VARIABLE CP

10 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22
DEPENDENT VARIABLE CP

ORIGINAL PAGE IS
OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

PAGE 974

ARC11-023IAB0 OTS(SRB=N ORB NO.2 OUTLET

(RE4GB4)

ALPHA (2) = -.406 BETA (2) = -.006

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3232 -.0953

ALPHA (2) = -.446 BETA (3) = 4.019 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0180
45.000 .1373
90.000 -.0984
135.000 .1700
180.000 .0000
225.000 .2328
270.000 -.0468
315.000 .3803

ALPHA (3) = 3.953 BETA (1) = -.009 MACH = 1.3971 RN/L = 4.3340 PO = 2109.8 P = 665.69

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0343
45.000 .3059
90.000 -.1129
135.000 .2442
180.000 .0000
225.000 .2066
270.000 -.1593
315.000 .2961

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB5) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.072 BETA (1) = .012 MACH = .58560 RN/L = 3.4206 PO = 2115.4 P = 1677.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0655
45.000 -.1471
90.000 -.1380
135.000 .0317
180.000 .0000
225.000 .0339
270.000 -.1485
315.000 -.1580

ALPHA (2) = -.284 BETA (1) = -4.003 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0438
45.000 .0003
90.000 -.1010
135.000 .0060
180.000 .0000
225.000 -.0401
270.000 -.1182
315.000 -.2124

ALPHA (2) = -.337 BETA (2) = .003 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0461
45.000 -.1079
90.000 -.1062
135.000 -.0145
180.000 .0000
225.000 -.0085

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB5)

ALPHA (2) = -.337 BETA (2) = .003

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.1092
315.000 -.1085

ALPHA (2) = -.357 BETA (3) = 4.025 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0499
45.000 -.2141
90.000 -.1202
135.000 -.0421
180.000 .0000
225.000 .0104
270.000 -.1027
315.000 -.0011

ALPHA (3) = 3.868 BETA (1) = .006 MACH = .59730 RN/L = 3.4653 PO = 2114.7 P = 1661.5

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 -.0321
45.000 -.0559
90.000 -.0839
135.000 -.0709
180.000 .0000
225.000 -.0600
270.000 -.1019
315.000 -.0563

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB6) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.013 BETA (1) = .009 MACH = .89890 RN/L = 4.2040 PO = 2109.8 P = 1249.0

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0253
45.000 -.1446
90.000 -.0099
135.000 .0844
180.000 .0000
225.000 .0879
270.000 -.0189
315.000 -.1596

ALPHA (2) = -.317 BETA (1) = -4.003 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0302
45.000 -.0219
90.000 -.0013
135.000 -.0065
180.000 .0000
225.000 .0243
270.000 -.0391
315.000 -.1203

ALPHA (2) = -.310 BETA (2) = .003 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0347
45.000 -.0827
90.000 -.0159
135.000 .0009
180.000 .0000
225.000 .0111

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUTLET

(RE4086)

ALPHA (2) = -.310 BETA (2) = .003

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0341
315.000 -.0961

ALPHA (2) = -.340 BETA (3) = 4.025 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0233
45.000 -.1054
90.000 -.0428
135.000 .0231
180.000 .0000
225.000 .0000
270.000 -.0168
315.000 -.0322

ALPHA (3) = 3.854 BETA (1) = .009 MACH = .90130 RN/L = 4.2056 PO = 2109.1 P = 1245.3

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0291
45.000 -.0166
90.000 -.0987
135.000 -.0634
180.000 .0000
225.000 -.0585
270.000 -.1065
315.000 -.0266

DATE 23 JUL 76

TABULATED SOURCE DATA - IABD

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ARC11-0231ABD OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB7) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.003 BETA (1) = -.012 MACH = 1.0992 RN/L = 4.3803 PO = 2102.7 P = 985.74

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2292
45.000 .1117
90.000 .1914
135.000 .3051
180.000 .0000
225.000 .2997
270.000 .1979
315.000 .0942

ALPHA (2) = -.393 BETA (1) = -4.006 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2234
45.000 .1810
90.000 .2637
135.000 .1257
180.000 .0000
225.000 .2452
270.000 .1420
315.000 .1888

ALPHA (2) = -.347 BETA (2) = -.019 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506
PHI
.000 .2213
45.000 .2094
90.000 .2287
135.000 .2215
180.000 .0000
225.000 .2103

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4687)

ALPHA (2) = -.347 BETA (2) = -.019

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2139
315.000 .1924

ALPHA (2) = -.383 BETA (3) = 4.012 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2192
45.000 .2023
90.000 .1144
135.000 .2777
180.000 .0000
225.000 .1110
270.000 .2418
315.000 .1712

ALPHA (3) = 4.049 BETA (1) = -.012 MACH = 1.1075 RN/L = 4.3846 PO = 2102.7 P = 975.68

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1902
45.000 .2512
90.000 .1590
135.000 .0815
180.000 .0000
225.000 .0660
270.000 .1436
315.000 .2422

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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB8) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.914 BETA (1) = -.009 MACH = 1.2513 RN/L = 4.3952 PO = 2104.1 P = 810.95

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0337
45.000 .2360
90.000 .0086
135.000 .3388
180.000 .0000
225.000 .3230
270.000 -.0138
315.000 .2192

ALPHA (2) = -.353 BETA (1) = -4.006 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1850
45.000 .2927
90.000 .1239
135.000 .1620
180.000 .0000
225.000 .2036
270.000 -.0341
315.000 .2435

ALPHA (2) = -.357 BETA (2) = -.016 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1549
45.000 .3298
90.000 .0146
135.000 .3055
180.000 .0000
225.000 .2906

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB8)

ALPHA (2) = -.367 BETA (2) = -.016

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 -.0228
315.000 .3206

ALPHA (2) = -.393 BETA (3) = 4.016 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1910
45.000 .2362
90.000 -.0294
135.000 .2586
180.000 .0000
225.000 .1568
270.000 .0773
315.000 .2773

ALPHA (3) = 4.053 BETA (1) = -.012 MACH = 1.2485 RN/L = 4.3917 PO = 2104.1 P = 813.89

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2640
45.000 .3396
90.000 .0674
135.000 .1572
180.000 .0000
225.000 .1362
270.000 .0301
315.000 .3322

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4089) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.934 BETA (1) = -.009 MACH = 1.4069 RN/L = 4.3421 PO = 2107.0 P = 655.71

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0035
45.000 .2688
90.000 -.0363
135.000 .2951
180.000 .0000
225.000 .2589
270.000 .0706
315.000 .2641

ALPHA (2) = -.426 BETA (1) = -4.006 MACH = 1.4069 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0055
45.000 .3833
90.000 .0277
135.000 .2474
180.000 .0000
225.000 .1460
270.000 -.1183
315.000 .1099

ALPHA (2) = -.383 BETA (2) = -.016 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0095
45.000 .3230
90.000 -.0549
135.000 .3230
180.000 .0000
225.000 .2996

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET

(RE4GB9)

ALPHA (2) = -.383 BETA (2) = -.016

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000
315.000 .3241 -.0883

ALPHA (2) = -.435 BETA (3) = 4.016 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0141
45.000 .1308
90.000 -.0934
135.000 .1661
180.000 .0000
225.000 .2410
270.000 -.0465
315.000 .3811

ALPHA (3) = 4.046 BETA (1) = -.012 MACH = 1.4068 RN/L = 4.3293 PO = 2108.4 P = 656.24

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0288
45.000 .2921
90.000 -.1029
135.000 .2515
180.000 .0000
225.000 .2119
270.000 -.1502
315.000 .2944

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET

(RE4600) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.029 BETA (1) = .016 MACH = .89710 RN/L = 4.2461 PO = 2124.5 P = 1260.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1075
45.000 -.1452
90.000 .0349
135.000 .0852
180.000 .0000
225.000 .0918
270.000 .0299
315.000 -.1583

ALPHA (2) = -.241 BETA (1) = -4.009 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1134
45.000 -.0189
90.000 .0549
135.000 -.0058
180.000 .0000
225.000 .0266
270.000 .0166
315.000 -.1161

ALPHA (2) = -.264 BETA (2) = -.003 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1186
45.000 -.0788
90.000 .0462
135.000 .0032
180.000 .0000
225.000 .0143

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET

(RE4GCO)

ALPHA (2) = -.264 BETA (2) = -.003

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

270.000 .0268
315.000 -.0889

ALPHA (2) = -.291 BETA (3) = 4.022 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1070
45.000 -.1036
90.000 .0055
135.000 .0238
180.000 .0000
225.000 .0081
270.000 .0436
315.000 -.0238

ALPHA (3) = 3.980 BETA (1) = .016 MACH = .90820 RN/L = 4.2637 PO = 2123.2 P = 1244.2

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI

.000 .1210
45.000 -.0039
90.000 -.0183
135.000 -.0607
180.000 .0000
225.000 -.0509
270.000 -.0217
315.000 -.0150

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET

(RE4GC1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.000 BETA (1) = .012 MACH = 1.1039 RN/L = 4.4630 PO = 2123.2 P = 989.56

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2924
45.000 .1172
90.000 .2220
135.000 .3089
180.000 .0000
225.000 .3013
270.000 .2181
315.000 .0991

ALPHA (2) = -.264 BETA (1) = -4.009 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2809
45.000 .1828
90.000 .2868
135.000 .1178
180.000 .0000
225.000 .2443
270.000 .1624
315.000 .1903

ALPHA (2) = -.284 BETA (2) = .000 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2823
45.000 .2038
90.000 .2512
135.000 .2128
180.000 .0000
225.000 .2024

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 988

ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET

(RE4GC1)

ALPHA (2) = -.284 BETA (2) = .000

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI		
270.000		.2334
315.000	.1845	

ALPHA (2) = -.297 BETA (3) = 4.022 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI		
.000		.2741
45.000	.1990	
90.000		.1258
135.000	.2796	
180.000		.0000
225.000	.1112	
270.000		.2587
315.000	.1718	

ALPHA (3) = 3.910 BETA (1) = .016 MACH = 1.1026 RN/L = 4.4854 PO = 2123.9 P = 991.59

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI		
.000		.2533
45.000	.2447	
90.000		.1947
135.000	.0784	
180.000		.0000
225.000	.0666	
270.000		.1940
315.000	.2351	

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OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)ET

(RE4GC2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.996 BETA (1) = .016 MACH = .90230 RN/L = 4.2244 PO = 2111.2 P = 1245.1

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1139
45.000 -.1384
90.000 .0408
135.000 .0857
180.000 .0000
225.000 .0939
270.000 .0355
315.000 -.1506

ALPHA (2) = -.284 BETA (1) = -4.012 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1041
45.000 -.0253
90.000 .0459
135.000 -.0080
180.000 .0000
225.000 .0177
270.000 .0078
315.000 -.1312

ALPHA (2) = -.360 BETA (2) = -.003 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1206
45.000 -.0694
90.000 .0512
135.000 .0075
180.000 .0000
225.000 .0214

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-0231AB0 OTS(ET SPOIL(SRB=ORB=NOM)ET

(RE4GC2)

ALPHA (2) = -.360 BETA (2) = -.003

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .0342
315.000 -.0813

ALPHA (2) = -.330 BETA (3) = 4.019 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .0963
45.000 -.1149
90.000 -.0044
135.000 .0175
180.000 .0000
225.000 .0002
270.000 .0309
315.000 -.0327

ALPHA (3) = 3.927 BETA (1) = .012 MACH = .89920 RN/L = 4.2176 PO = 2110.5 P = 1249.0

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .1187
45.000 -.0163
90.000 -.0201
135.000 -.0624
180.000 .0000
225.000 -.0504
270.000 -.0243
315.000 -.0247

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 991

ARC11-0231A90 OTS(ET SPOIL(SRB=ORB=NOM)ET

(RE4GC3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-CB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.033 BETA (1) = .016 MACH = 1.1036 RN/L = 4.4660 PO = 2114.0 P = 985.75

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2931
45.000 .1163
90.000 .2132
135.000 .3113
180.000 .0000
225.000 .3039
270.000 .2156
315.000 .0989

ALPHA (2) = -.433 BETA (1) = -4.009 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2798
45.000 .1789
90.000 .2835
135.000 .1234
180.000 .0000
225.000 .2459
270.000 .1599
315.000 .1846

ALPHA (2) = -.446 BETA (2) = -.003 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2162
45.000 .2090
90.000 .2339
135.000 .2247
180.000 .0000
225.000 .2158

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)ET

(RE4GC3)

ALPHA (2) = -.446 BETA (2) = -.003

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
270.000 .2300
315.000 .1910

ALPHA (2) = -.456 BETA (3) = 4.022 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

XT/LT .3362 .8506

PHI
.000 .2684
45.000 .1884
90.000 .1360
135.000 .2776
180.000 .0000
225.000 .1141
270.000 .2520
315.000 .1606

ALPHA (3) = 3.844 BETA (1) = .003 MACH = 1.1023 RN/L = 4.4653 PO = 2114.7 P = 927.65

SECTION (1)EXTERNAL TANK

DEPENDENT VARIABLE CP

X LT .3362 .8506

PHI
.000 .2576
45.000 .2445
90.000 .1994
135.000 .0862
180.000 .0000
225.000 .0747
270.000 .1906
315.000 .2347

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET BASE

(RE4H01) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-18 = .000 ELV-08 = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -4.013 BETA (1) = -.019 MACH = .59860 RN/L = 3.3812 PO = 2110.5 P = 1656.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3483		-.2869	-.2977	-.3586	-.7059	-.8446	
45.000				-.3567				
90.000			-.3597	-.4124	-.4291	-.6032	-.7907	
135.000				-.3596	-.4055	-.6193		.2162
180.000			-.3409	-.3548	-.3785	-.4433	-.6730	
225.000						-.7333		.1423
270.000		-.3411	-.3313	-.3490			-.6761	
315.000				-.3408	-.3596	-.4958		-.5670

ALPHA (2) = -.314 BETA (1) = -4.034 MACH = .59953 RN/L = 3.3978 PO = 2110.3 P = 1655.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3528		-.2606	-.3077	-.3293	-.6745	-.8941	
45.000				-.3724				
90.000			-.3517	-.4442	-.4873	-.5750	-.7903	
135.000				-.3793	-.3935	-.6738		.3195
180.000			-.3519	-.3752	-.3980	-.4481	-.7131	
225.000						-.6869		.0699
270.000		-.3325	-.3317	-.3338			-.6354	
315.000				-.3341	-.3476	-.4876		-.6031

ALPHA (2) = -.340 BETA (2) = -.019 MACH = .59953 RN/L = 3.3378 PO = 2110.3 P = 1655.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3296		-.2786	-.2937	-.3254	-.6826	-.8699	
45.000				-.3555				
90.000			-.3510	-.4067	-.4295	-.5674	-.7470	
135.000				-.3639	-.4051	-.6338		.2437
180.000			-.3419	-.3517	-.3592	-.4468	-.6743	
225.000						-.7311		.1803

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

ET BASE

(RE4H01)

ALPHA (2) = -.340 BETA (2) = -.019

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000 -.3221 -.3256 -.3527 -.6753

315.000 -.3320 -.3423 -.4401 -.5790

ALPHA (2) = -.459 BETA (3) = 3.997 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3379 -.2876 -.2955 -.3201 -.6462 -.8783

45.000 -.3344

90.000 -.3406 -.3768 -.3932 -.5510 -.7481

135.000 -.3379 -.3596 -.5148 .0599

180.000 -.3228 -.3522 -.3505 -.4472 -.6825

225.000 -.7390 -.2298

270.000 -.3291 -.3177 -.3467 -.7091

315.000 -.3450 -.3450 -.4407 -.5755

ALPHA (3) = 4.039 BETA (1) = -.019 MACH = .59860 RN/L = 3.3974 PO = 2109.8 P = 1655.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3364 -.2695 -.2827 -.3187 -.6925 -.8743

45.000 -.3485

90.000 -.3406 -.4023 -.4505 -.5271 -.7003

135.000 -.3636 -.4160 -.6394 .2844

180.000 -.3303 -.3475 -.3636 -.4388 -.6730

225.000 -.7480 .2419

270.000 -.3265 -.3159 -.3207 -.6350

315.000 -.3269 -.3338 -.4432 -.5394

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET BASE

(RE4H02) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.901 BETA (1) = -.012 MACH = .90550 RN/L = 4.2328 PO = 2108.4 P = 1239.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3554 -.3614 -.3733 -.3869 -.4233 -.6952
45.000 -.4162
90.000 -.3620 -.4023 -.4298 -.5500 -.7877
135.000 -.3711 -.4342 -.5822 .2625
180.000 -.3397 -.3604 -.3659 -.4329 -.6051
225.000 -.6858 .2680
270.000 -.3566 -.3504 -.3694 -.6069
315.000 -.4069 -.4494 -.5866 -.4250

ALPHA (2) = -.347 BETA (1) = -4.025 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3750 -.3780 -.3877 -.4021 -.4162 -.6987
45.000 -.4102
90.000 -.3616 -.4234 -.4997 -.5258 -.6470
135.000 -.3734 -.4116 -.6551 .4726
180.000 -.3535 -.3744 -.3983 -.4991 -.8420
225.000 -.6743 .1408
270.000 -.3764 -.3531 -.3807 -.6049
315.000 -.4294 -.5049 -.6096 -.4172

ALPHA (2) = -.380 BETA (2) = -.009 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3312 -.3256 -.3500 -.3605 -.4286 -.6754
45.000 -.3945
90.000 -.3503 -.4055 -.4359 -.5194 -.7227
135.000 -.3706 -.4476 -.6014 .3678
180.000 -.3284 -.3485 -.3442 -.4343 -.5844
225.000 -.6553 .3373

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

ET BASE

(RE4H02)

ALPHA (2) = -.380 BETA (2) = -.009

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3308	-.3372	-.3389			-.5549	
315.000			-.3493	-.3793	-.5630		-.4034

ALPHA (2) = -.456 BETA (3) = 4.003 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3529		-.3626	-.3749	-.3875	-.4095	-.6940
45.000				-.4098			
90.000			-.3346	-.3709	-.3740	-.5125	-.8033
135.000				-.3715	-.3926	-.5323	.0717
180.000			-.3587	-.3632	-.3851	-.4812	-.6948
225.000						-.7249	.3341
270.000	-.3535	-.3585	-.3543			-.4954	
315.000			-.3711	-.3985	-.5194		-.4231

ALPHA (3) = 3.977 BETA (1) = -.009 MACH = .89810 RN/L = 4.2116 PO = 2105.5 P = 1247.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3445		-.3356	-.3620	-.3748	-.4138	-.6894
45.000				-.3709			
90.000			-.3414	-.3867	-.4178	-.5180	-.7794
135.000				-.3936	-.4839	-.6325	.4186
180.000			-.3183	-.3524	-.3464	-.4415	-.5984
225.000						-.6490	.3585
270.000	-.3405	-.3452	-.3497			-.4524	
315.000			-.3543	-.3750	-.4768		-.4174

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N) ET BASE

(RE4H03) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.920 BETA (1) = -.003 MACH = 1.0986 RN/L = 4.3008 PO = 2109.8 P = 989.64

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3031		-.3077	-.3403	-.3875	-.5471	-.3028
45.000				-.3611			
90.000			-.3235	-.3371	-.3356	-.3559	-.4392
135.000				-.3323	-.3657	-.4751	.3112
180.000			-.3069	-.3490	-.4045	-.4175	-.5788
225.000						-.5187	.3051
270.000	-.3163	-.3216	-.3436				-.4289
315.000			-.3638	-.4159	-.5445		-.0682

ALPHA (2) = -.621 BETA (1) = -4.006 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3071		-.3190	-.3213	-.3311	-.4009	-.3275
45.000				-.3590			
90.000			-.3236	-.3466	-.3644	-.4528	-.6599
135.000				-.3717	-.3919	-.5537	.6094
180.000			-.3272	-.3206	-.3348	-.4095	-.5662
225.000						-.4776	.2322
270.000	-.3239	-.3299	-.3513				-.4317
315.000			-.3566	-.3860	-.5011		-.0635

ALPHA (2) = -.641 BETA (2) = .000 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.2733		-.2955	-.3068	-.3363	-.4694	-.3149
45.000				-.3226			
90.000			-.2919	-.3190	-.3213	-.4382	-.5459
135.000				-.3090	-.3427	-.4770	.3939
180.000			-.3024	-.3397	-.3907	-.4128	-.5937
225.000						-.5253	.3829

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

ET BASE

(RE4H03)

ALPHA (2) = -.641 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2849	-.2889	-.3236			-.4752	
315.000			-.3120	-.3498	-.4292		-.0728

ALPHA (2) = -.492 BETA (3) = 4.009 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3003	-.3116	-.3221	-.3287	-.3912	-.3244	
45.000			-.3304				
90.000		-.3266	-.3399	-.3472	-.3779	-.4343	
135.000			-.3426	-.3737	-.4481		.2159
180.000		-.3276	-.3499	-.4150	-.5045	-.7355	
225.000					-.4776		.4678
270.000	-.3136	-.3125	-.3265			-.4918	
315.000			-.3702	-.4220	-.5408		-.1117

ALPHA (3) = 3.944 BETA (1) = -.003 MACH = 1.1088 RN/L = 4.3102 PO = 2108.4 P = 976.70

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3316	-.3319	-.3538	-.3730	-.4820	-.3178	
45.000			-.3735				
90.000		-.3313	-.3589	-.3810	-.4803	-.5696	
135.000			-.3643	-.3964	-.4998		.4615
180.000		-.3418	-.3460	-.4245	-.4669	-.6793	
225.000					-.5145		.3464
270.000	-.3333	-.3308	-.3525			-.4697	
315.000			-.3827	-.4657	-.6185		-.1298

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

ET BASE

(RE4H04) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-CB = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -4.165 BETA (1) = .000 MACH = 1.2595 RN/L = 4.4972 PO = 2140.2 P = 815.83

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .2181 - .2165 - .2574 - .3104 - .4367 - .1437
 45.000 - .2537
 90.000 - .2100 - .2574 - .2597 - .2594 - .4835
 135.000 - .2260 - .2614 - .3683 .4041
 180.000 - .2203 - .2719 - .2939 - .3155 - .4336
 225.000 - .4148 .3210
 270.000 - .2161 - .2091 - .2347 - .4320
 315.000 - .2731 - .3506 - .4638 - .0246

ALPHA (2) = -.495 BETA (1) = -4.006 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .2221 - .2153 - .2558 - .2887 - .4184 - .1840
 45.000 - .2260
 90.000 - .2305 - .2329 - .3157 - .3630 - .4831
 135.000 - .2781 - .2528 - .3603 .6305
 180.000 - .2305 - .2391 - .2611 - .3808 - .4414
 225.000 - .3855 .2459
 270.000 - .2161 - .2038 - .2270 - .4675
 315.000 - .3440 - .3823 - .4702 - .0103

ALPHA (2) = -.528 BETA (2) = .000 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .1997 - .1915 - .2400 - .2847 - .4129 - .1440
 45.000 - .2237
 90.000 - .2035 - .2272 - .2228 - .2454 - .4868
 135.000 - .2056 - .2674 - .3969 .4742
 180.000 - .2256 - .2809 - .3065 - .3196 - .4156
 225.000 - .4125 .3769

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

ET BASE

(RE4H04)

ALPHA (2) = -.528 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2010	-.1962	-.2229			-.4564	
315.000			-.2409	-.3700	-.5001		-.0055

ALPHA (2) = -.555 BETA (3) = 4.006 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.1981		-.2179	-.2496	-.2723	-.3963	-.1785
45.000				-.2992			
90.000			-.2079	-.2312	-.2476	-.3337	-.4883
135.000				-.2248	-.2575	-.3480	.1832
180.000			-.2165	-.2680	-.2957	-.3480	-.5241
225.000						-.3499	.4613
270.000	-.2106	-.2095	-.2436			-.3982	
315.000			-.2101	-.2952	-.4893		-.0059

ALPHA (3) = 3.881 BETA (1) = .006 MACH = 1.2464 RN/L = 4.4257 PO = 2113.3 P = 819.82

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2169		-.2004	-.2514	-.2705	-.3800	-.1807
45.000				-.2418			
90.000			-.2150	-.2283	-.2547	-.2545	-.4750
135.000				-.2340	-.2643	-.3704	.4758
180.000			-.2517	-.2883	-.3098	-.3282	-.4854
225.000						-.3849	.3821
270.000	-.2148	-.2149	-.2428			-.3837	
315.000			-.2228	-.3436	-.5120		-.0113

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TABULATED SOURCE DATA - 1A80

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ARC11-0731A80 OTS(SRB=N++ ORB=N) ET BASE

(RE4H05) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.950 BETA (1) = -.003 MACH = 1.4026 RN/L = 4.3103 PO = 2124.6 P = 665.23

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1515	-.1405	-.1462	-.1592	-.2097	-.1855	
45.000			-.1550				
90.000		-.1325	-.2328	-.2230	-.1868	-.3925	
135.000			-.1703	-.2140	-.3065		.4262
180.000		-.1720	-.2199	-.2346	-.2436	-.3128	
225.000					-.3312		.3161
270.000	-.1584	-.1563	-.1762			-.3721	
315.000			-.1813	-.2156	-.3607		-.0667

ALPHA (2) = -.436 BETA (1) = -4.009 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1607	-.1378	-.1525	-.1712	-.2281	-.1618	
45.000			-.1695				
90.000		-.1891	-.1897	-.1972	-.1949	-.3537	
135.000			-.2263	-.2653	-.2477		.5633
180.000		-.1739	-.1768	-.1842	-.2234	-.1980	
225.000					-.2993		.2329
270.000	-.1522	-.1550	-.1813			-.3176	
315.000			-.1573	-.1957	-.3381		-.0413

ALPHA (2) = -.482 BETA (2) = -.003 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1557	-.1270	-.1457	-.1639	-.2418	-.1749	
45.000			-.1581				
90.000		-.1574	-.2139	-.2034	-.1804	-.3948	
135.000			-.2008	-.2388	-.3204		.5232
180.000		-.1702	-.2092	-.2318	-.2357	-.3202	
225.000					-.3139		.3554

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TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=N++ ORB=N)

ET BASE

(RE4H05)

ALPHA (2) = -.482 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.1545	-.1557	-.1830			-.3764	
315.000			-.1597	-.1644	-.3151		-.0432

ALPHA (2) = -.505 BETA (3) = 4.009 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1551		-.1641	-.1783	-.1884	-.2488	-.1637
45.000				-.1771			
90.000			-.1566	-.1639	-.1634	-.1652	-.3461
135.000				-.1705	-.1900	-.2551	.1977
180.000			-.1609	-.2060	-.2302	-.2652	-.4364
225.000						-.2314	.4395
270.000	-.1743	-.1685	-.2061			-.3468	
315.000			-.1580	-.1598	-.2583		-.0429

ALPHA (3) = 3.881 BETA (1) = -.006 MACH = 1.4020 RN/L = 4.3020 PO = 2122.5 P = 665.10

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1574		-.1310	-.2001	-.2152	-.3264	-.0676
45.000				-.1570			
90.000			-.1579	-.2160	-.2283	-.2579	-.3950
135.000				-.2031	-.2524	-.3025	.5143
180.000			-.1566	-.1867	-.2116	-.2146	-.3218
225.000						-.2884	.3950
270.000	-.1468	-.1444	-.1731			-.3485	
315.000			-.1399	-.1965	-.2665		.0503

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H06) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-1B = .000 ELV-08 = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.848 BETA (1) = -.019 MACH = .59910 RN/L = 3.3852 PO = 2109.1 P = 1656.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3617 -.2882 -.2976 -.3716 -.7090 -.8635
 45.000 -.3663
 90.000 -.3594 -.4075 -.4441 -.6024 -.7872
 135.000 -.3697 -.4238 -.6250 .2159
 180.000 -.3395 -.3623 -.3736 -.4412 -.6850
 225.000 -.7275 .1435
 270.000 -.3477 -.3357 -.3606 -.6652
 315.000 -.3575 -.3599 -.4935 -.5775

ALPHA (2) = -.350 BETA (1) = -4.038 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3583 -.2800 -.3052 -.3371 -.6774 -.8970
 45.000 -.3687
 90.000 -.3647 -.4412 -.4900 -.5685 -.7789
 135.000 -.3732 -.3975 -.6671 .3235
 180.000 -.3532 -.3784 -.3971 -.4420 -.7194
 225.000 -.6750 .0715
 270.000 -.3343 -.3325 -.3401 -.5249
 315.000 -.3345 -.3381 -.4970 -.6019

ALPHA (2) = -.314 BETA (2) = -.022 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3395 -.2759 -.2930 -.3382 -.6612 -.8607
 45.000 -.3525
 90.000 -.3488 -.4072 -.4290 -.5784 -.7552
 135.000 -.3692 -.4178 -.6381 .2465
 180.000 -.3382 -.3603 -.3709 -.4500 -.6795
 225.000 -.7359 .1824

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TABULATED SOURCE DATA ~ 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H06)

ALPHA (2) = -.314 BETA (2) = -.022

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3341	-.3297	-.3488			-.6623	
315.000			-.3433	-.3352	-.4310		-.5743

ALPHA (2) = -.396 BETA (3) = 3.997 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3546		-.3041	-.3077	-.3299	-.6551	-.9094
45.000				-.3515			
90.000			-.3485	-.3829	-.4024	-.5688	-.7730
135.000				-.3543	-.3779	-.5276	.0503
180.000			-.3347	-.3581	-.3634	-.4559	-.7045
225.000						-.7676	.2223
270.000	-.3454	-.3343	-.3684			-.7227	
315.000			-.3515	-.3606	-.4602		-.5949

ALPHA (3) = 3.970 BETA (1) = -.022 MACH = .59820 RN/L = 3.3879 PO = 2107.7 P = 1654.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3437	-.2779	-.2919	-.3368	-.6908	-.9809	
45.000			-.3585				
90.000		-.3437	-.4081	-.4557	-.5342	-.7156	
135.000			-.3707	-.4242	-.6490		.2837
180.000		-.3331	-.3546	-.3659	-.4438	-.6880	
225.000					-.7473		.2419
270.000	-.3243	-.3245	-.3228			-.6383	
315.000			-.3399	-.3453	-.4543		-.5421

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET BASE

(RE4H07) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.930 BETA (1) = -.009 MACH = .89930 RN/L = 4.2036 PO = 2101.3 P = 1243.3

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3692 -.3789 -.4035 -.4045 -.4437 -.7120
45.000 -.4377
90.000 -.3784 -.4156 -.4652 -.5761 -.3089
135.000 -.3901 -.4477 -.6001 .2651
180.000 -.3614 -.3774 -.3988 -.4661 -.6198
225.000 -.7117 .2652
270.000 -.3714 -.3723 -.3835 -.6262
315.000 -.4146 -.4629 -.6194 -.4388

ALPHA (2) = -.376 BETA (1) = -4.028 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3855 -.3886 -.4093 -.4141 -.4553 -.6895
45.000 -.4267
90.000 -.3921 -.4380 -.5095 -.5641 -.8635
135.000 -.3818 -.4185 -.6714 .4745
180.000 -.3822 -.3909 -.4141 -.5351 -.8546
225.000 -.6924 .1454
270.000 -.3896 -.3838 -.4004 -.6320
315.000 -.4548 -.5429 -.6619 -.4119

ALPHA (2) = -.330 BETA (2) = -.012 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3704 -.3678 -.3977 -.4018 -.4650 -.6840
45.000 -.4189
90.000 -.3750 -.4213 -.4681 -.5658 -.8098
135.000 -.4094 -.4892 -.6332 .3576
180.000 -.3525 -.3840 -.3789 -.4677 -.6269
225.000 -.6833 .3293

ARC11-0231A80 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H07)

ALPHA (2) = -.330 BETA (2) = -.012

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.3758	-.3744	-.3947			-.5982		
315.000			-.4095	-.4413	-.5467		-.4149	

ALPHA (2) = -.330 BETA (3) = 4.003 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3779	-.3861	-.3959	-.4180	-.4346	-.6853		
45.000			-.4463					
90.000		-.3547	-.3929	-.3962	-.5349	-.8160		
135.000			-.3956	-.4036	-.5482		.0745	
180.000		-.3975	-.3995	-.4252	-.4993	-.7249		
225.000					-.7359		.3328	
270.000	-.3785	-.3713	-.3756			-.5214		
315.000			-.3956	-.4258	-.5943		-.4176	

ALPHA (3) = 3.927 BETA (1) = -.016 MACH = .90160 RN/L = 4.2086 PO = 2101.3 P = 1241.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3666	-.3601	-.3936	-.4009	-.4525	-.5806		
45.000			-.3966					
90.000		-.3672	-.3886	-.4358	-.5623	-.9138		
135.000			-.4126	-.5041	-.6503		.4236	
180.000		-.3504	-.3750	-.3662	-.4623	-.6284		
225.000					-.6646		.3699	
270.000	-.3708	-.3664	-.3706			-.4713		
315.000			-.3791	-.3991	-.5501		-.4157	

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET BASE

(RE4H08) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.907 BETA (1) = .000 MACH = 1.0989 RN/L = 4.3130 PO = 2107.0 P = 988.16

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3390	-.3450	-.3849	-.4324	-.5790	-.3027	
45.000			-.4011				
90.000		-.3673	-.3762	-.3729	-.3837	-.4472	
135.000			-.3690	-.4029	-.5083		.3087
180.000		-.3445	-.3731	-.4356	-.4631	-.6432	
225.000					-.5393		.2963
270.000	-.3539	-.3629	-.3801			-.4364	
315.000			-.4128	-.4557	-.5736		-.0679

ALPHA (2) = -.515 BETA (1) = -4.003 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3401	-.3549	-.3614	-.3722	-.4507	-.3290	
45.000			-.3929				
90.000		-.3570	-.3743	-.3945	-.4463	-.6674	
135.000			-.4091	-.4310	-.5845		.6091
180.000		-.3606	-.3567	-.3686	-.4488	-.6019	
225.000					-.4934		.2373
270.000	-.3532	-.3657	-.3969			-.4401	
315.000			-.4102	-.4322	-.5513		-.0665

ALPHA (2) = -.525 BETA (2) = .003 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 995.16

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3087	-.3243	-.3549	-.3743	-.5181	-.3160	
45.000			-.3539				
90.000		-.3306	-.3524	-.3622	-.4660	-.5591	
135.000			-.3412	-.3732	-.5042		.3934
180.000		-.3326	-.3467	-.4208	-.4484	-.6403	
225.000					-.5471		.3844

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H08)

ALPHA (2) = -.525 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3162	-.3313	-.3539			-.5064	
315.000				-.3524	-.3671	-.4560		-.0734

ALPHA (2) = -.426 BETA (3) = 4.012 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 995.16

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3478	-.3557	-.3637	-.3777	-.4453	-.3273	
45.000				-.3826				
90.000			-.3622	-.3797	-.3867	-.4065	-.4459	
135.000				-.3789	-.4121	-.4771		.2141
180.000			-.3601	-.3790	-.4491	-.5723	-.7722	
225.000						-.5144		.4667
270.000		-.3542	-.3535	-.3705			-.5561	
315.000				-.4244	-.4596	-.5782		-.1142

ALPHA (3) = 3.881 BETA (1) = .006 MACH = 1.1017 RN/L = 4.3151 PO = 2105.5 P = 984.01

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3568	-.3649	-.3876	-.4102	-.5325	-.3239	
45.000				-.4062				
90.000			-.3678	-.3903	-.4148	-.4844	-.6785	
135.000				-.3932	-.4244	-.5308		.4464
180.000			-.3614	-.3822	-.4470	-.4985	-.7351	
225.000						-.5360		.3398
270.000		-.3631	-.3653	-.3936			-.5051	
315.000				-.4318	-.4868	-.6301		-.1316

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1009

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET BASE

(RE4H09) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.897 BETA (1) = .006 MACH = 1.2489 RN/L = 4.4001 PO = 2111.9 P = 816.48

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.2450 -.2458 -.2967 -.3548 -.4706 -.1456
45.000 -.3066
90.000 -.2574 -.2748 -.2778 -.2884 -.4919
135.000 -.2585 -.2930 -.4073 .4024
180.000 -.2529 -.3030 -.3260 -.3536 -.4648
225.000 -.4459 .3248
270.000 -.2453 -.2411 -.2692 -.4708
315.000 -.3311 -.3734 -.4930 -.0304

ALPHA (2) = -.482 BETA (1) = -4.006 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.2379 -.2411 -.2767 -.3083 -.4393 -.1842
45.000 -.2563
90.000 -.2506 -.2689 -.2699 -.4152 -.4855
135.000 -.3000 -.3173 -.3954 .6307
180.000 -.2544 -.2533 -.2633 -.3423 -.3445
225.000 -.3986 .2486
270.000 -.2294 -.2236 -.2632 -.4806
315.000 -.3608 -.4018 -.4733 -.0127

ALPHA (2) = -.519 BETA (2) = .003 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.2265 -.2184 -.2700 -.3157 -.4396 -.1491
45.000 -.2619
90.000 -.2276 -.2458 -.2407 -.2621 -.4959
135.000 -.2311 -.2830 -.4195 .4655
180.000 -.2556 -.3071 -.3271 -.3427 -.4593
225.000 -.4235 .3759

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

PAGE 1010

ARC11-0231AB0 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H09)

ALPHA (2) = -.519 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.2249	-.2187	-.2560				-.4824	
315.000			-.2943	-.3948	-.5128			-.0087

ALPHA (2) = -.462 BETA (3) = 4.009 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.2361		-.2540	-.2793	-.3066	-.4256	-.1916	
45.000				-.3282				
90.000			-.2410	-.2701	-.2735	-.3632	-.5046	
135.000				-.2618	-.2989	-.755		.1762
180.000			-.2469	-.2952	-.3310	-.756	-.5611	
225.000						-.3819		.4677
270.000	-.2453	-.2413	-.2851				-.4169	
315.000			-.2566	-.3695	-.5271			-.0163

ALPHA (3) = 3.854 BETA (1) = .006 MACH = 1.2493 RN/L = 4.3962 PO = 2111.9 P = 816.04

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.2320		-.2200	-.2875	-.2654	-.4005	-.1787	
45.000				-.2619				
90.000			-.2324	-.2428	-.2511	-.2644	-.4726	
135.000				-.2504	-.2761	-.3756		.4810
180.000			-.2699	-.2995	-.3185	-.3345	-.5079	
225.000						-.3933		.3934
270.000	-.2290	-.2287	-.2632				-.3819	
315.000			-.2418		-.5218			-.0128

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1011

ARC11-0231A80 OTS(SRB=N+ ORB=N) ET BASE

(RE4H10) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.904 BETA (1) = -.006 MACH = 1.4001 RN/L = 4.2924 PO = 2119.7 P = 665.99

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.1745 -.1621 -.1769 -.1888 -.2558 -.1877
 45.000 -.1823
 90.000 -.1579 -.2606 -.2478 -.2193 -.3983
 135.000 -.2007 -.2411 -.3271 .4243
 180.000 -.1977 -.2426 -.2584 -.2633 -.3291
 225.000 -.3511 .3166
 270.000 -.1793 -.1826 -.2036 -.3843
 315.000 -.2027 -.2456 -.3764 -.0697

ALPHA (2) = -.406 BETA (1) = -4.009 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.1839 -.1652 -.1776 -.1938 -.2722 -.1626
 45.000 -.1947
 90.000 -.2126 -.2187 -.2117 -.2184 -.3519
 135.000 -.2627 -.2949 -.2629 .5600
 180.000 -.1972 -.2080 -.2080 -.2578 -.2263
 225.000 -.3127 .2313
 270.000 -.1771 -.1784 -.2095 -.3179
 315.000 -.1843 -.2372 -.3658 -.0427

ALPHA (2) = -.370 BETA (2) = .000 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.1727 -.1447 -.1637 -.1827 -.2704 -.1746
 45.000 -.1749
 90.000 -.1815 -.2043 -.1992 -.1977 -.3955
 135.000 -.2179 -.2535 -.3343 .5243
 180.000 -.1846 -.2262 -.2515 -.2486 -.3333
 225.000 -.3190 .3541

ARC11-0231A80 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H10)

ALPHA (2) = -.370 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.1748	-.1749	-.2029			-.3828	
315.000			-.1777	-.1871	-.3330		-.0433

ALPHA (2) = -.453 BETA (3) = 4.012 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1754	-.1810	-.1976	-.2072	-.2843	-.1639	
45.000			-.2012				
90.000		-.1760	-.1935	-.1931	-.1837	-.3508	
135.000			-.1857	-.2095	-.2593		.1965
180.000		-.1758	-.2243	-.2492	-.2867	-.4420	
225.000					-.2597		.4402
270.000	-.1898	-.1900	-.2248			-.3494	
315.000			-.1755	-.1782	-.2927		-.0471

ALPHA (3) = 3.944 BETA (1) = -.006 MACH = 1.3972 RN/L = 4.2925 PO = 2121.1 P = 669.17

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1715	-.1517	-.2178	-.2371	-.3407	-.0717	
45.000			-.1775				
90.000		-.1735	-.2262	-.2464	-.2809	-.3993	
135.000			-.2292	-.2709	-.3172		.5084
180.000		-.1766	-.2043	-.2211	-.2266	-.3479	
225.000					-.3006		.3910
270.000	-.1845	-.1657	-.1925			-.3620	
315.000			-.1837	-.2256	-.2971		.0492

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

PAGE 1013

ARC11-023IA80 OTS(SRB=N ORB=N+) ET BASE

(RE4H11) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.957 BETA (1) = -.016 MACH = .59560 RN/L = 3.3845 PO = 2105.5 P = 1656.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3637	-.2990	-.3115	-.3737	-.7171	-.8672	
45.000			-.3727				
90.000		-.3666	-.4159	-.4429	-.6017	-.8035	
135.000			-.3705	-.4229	-.6355		.2139
180.000		-.3579	-.3542	-.4132	-.4676	-.6586	
225.000					-.7562		.1413
270.000	-.3557	-.3437	-.3681			-.6658	
315.000			-.3588	-.3782	-.5109		-.5823

ALPHA (2) = -.337 BETA (1) = -.4041 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3652	-.2903	-.3121	-.3368	-.6899	-.9044	
45.000			-.3763				
90.000		-.3646	-.4502	-.5010	-.5827	-.7928	
135.000			-.3832	-.4087	-.6704		.3193
180.000		-.3712	-.3954	-.4191	-.4610	-.6987	
225.000					-.6969		.0704
270.000	-.3382	-.3368	-.3509			-.6503	
315.000			-.3433	-.3524	-.5011		-.6144

ALPHA (2) = -.363 BETA (2) = -.022 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3423	-.2861	-.2962	-.3446	-.6970	-.8667	
45.000			-.3533				
90.000		-.3509	-.4118	-.4360	-.5726	-.7494	
135.000			-.3679	-.4152	-.6335		.2453
180.000		-.3475	-.3515	-.3902	-.4636	-.6647	
225.000					-.7377		.1762

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1014

ARC11-0231A80 OTS(SRB=N ORB=N+)

ET BASE

(RE4H11)

ALPHA (2) = -.383 BETA (2) = -.022

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3334	-.3256	-.3498			-.6717	
315.000			-.3402	-.3430	-.4482		-.5793

ALPHA (2) = -.400 BETA (3) = 3.997 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3364		-.2838	-.2983	-.3169	-.6570	-.8891
45.000				-.3462			
90.000			-.3502	-.3720	-.3846	-.5564	-.7445
135.000				-.3441	-.3688	-.5180	.0555
180.000			-.3349	-.3407	-.3791	-.4748	-.6640
225.000						-.7540	.2294
270.000	-.3272	-.3235	-.3489			-.7026	
315.000			-.3393	-.3530	-.4389		-.5828

ALPHA (3) = 4.125 BETA (1) = -.025 MACH = .59930 RN/L = 3.4056 PO = 2106.2 P = 1652.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3473		-.2737	-.2901	-.3351	-.6967	-.8884
45.000				-.3533			
90.000			-.3398	-.4011	-.4482	-.5253	-.7120
135.000				-.3611	-.4208	-.6454	.2897
180.000			-.3278	-.3471	-.3934	-.4541	-.6581
225.000						-.7466	.2397
270.000	-.3299	-.3227	-.3293			-.6387	
315.000			-.3378	-.3471	-.4468		-.5494

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET BASE

(RE4H12) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -4.062 BETA (1) = -.012 MACH = .89970 RN/L = 4.2040 PO = 2099.9 P = 1242.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -1.3823 .3874 -.4082 -.4196 -.4482 -.7120
 45.000 .4484
 90.000 -.3807 -.4202 -.4648 -.5762 -.8304
 135.000 -.3919 -.4571 -.6170 .2566
 180.000 -.3570 -.3815 -.4012 -.4767 -.6156
 225.000 -.7137 .2557
 270.000 -.3778 -.3776 -.3890 -.6388
 315.000 -.4342 -.4837 -.6469 -.4383

ALPHA (2) = -.383 BETA (1) = -4.028 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -1.4031 .4065 -.4049 -.4363 -.4466 -.7049
 45.000 .4244
 90.000 -.3867 -.4322 -.5194 -.5563 -.8737
 135.000 -.3772 -.4306 -.6708 .4683
 180.000 -.3772 -.4029 -.4613 -.5021 -.8427
 225.000 -.6976 .1375
 270.000 -.4116 -.3847 -.4109 -.6426
 315.000 -.4730 -.5654 -.6539 -.4231

ALPHA (2) = -.383 BETA (2) = -.016 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -1.3535 .3469 -.3964 -.3868 -.4743 -.6768
 45.000 .4192
 90.000 -.3807 -.4021 -.4488 -.5612 -.7711
 135.000 -.3957 -.4616 -.6291 .3695
 180.000 -.3537 -.3577 -.3695 -.4748 -.6050
 225.000 .6783 .3317

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET BASE

(RE4H12)

ALPHA (2) = -.383 BETA (2) = -.016

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3559	-.3750	-.3755			-.5821	
315.000			-.3878	-.4127	-.6432		-.4071

ALPHA (2) = -.453 BETA (3) = 4.000 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3743		-.3797	-.4058	-.4121	-.4389	-.6833
45.000				-.4545			
90.000			-.3618	-.3790	-.3917	-.5245	-.8097
135.000				-.3970	-.4139	-.5577	.0745
180.000			-.4032	-.3978	-.4316	-.5148	-.7586
225.000						-.7317	.3337
270.000	-.3733	-.3712	-.3774			-.5130	
315.000			-.3877	-.4145	-.5950		-.4165

ALPHA (3) = 3.947 BETA (1) = -.012 MACH = .90020 RN/L = 4.1982 PO = 2099.2 P = 1240.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3665		-.3705	-.3957	-.4066	-.4508	-.6830
45.000				-.3989			
90.000			-.3639	-.3894	-.4343	-.5596	-.8176
135.000				-.4157	-.5011	-.6462	.4201
180.000			-.3409	-.3720	-.3858	-.4631	-.6212
225.000						-.6591	.3686
270.000	-.3717	-.3708	-.3757			-.4826	
315.000			-.3852	-.4117	-.5402		-.4185

DATE 23 JUL 75

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+) ET BASE

(RE4H13) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.950 BETA (1) = .006 MACH = 1.0974 RN/L = 4.3157 PO = 2105.5 P = 989.31

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -3.865 -3.950 -4.411 -4.877 -6.198 -3.049
 45.000 -4.519
 90.000 -4.136 -4.196 -4.187 -4.271 -4.533
 135.000 -4.259 -4.501 -5.565 .3042
 180.000 -4.4048 -4.747 -4.778 -5.153 -6.625
 225.000 -5.864 .2972
 270.000 -3.967 -4.029 -4.179 -4.442
 315.000 -4.587 -4.951 -6.117 -0.0717

ALPHA (2) = -.509 BETA (1) = -4.066 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -3.844 -4.4031 -4.4094 -4.254 -5.229 -3.303
 45.000 -4.365
 90.000 -4.120 -4.256 -4.399 -4.573 -6.760
 135.000 -4.478 -4.720 -6.148 .6100
 180.000 -4.130 -4.4014 -4.277 -5.5432 -6.066
 225.000 -5.153 .2359
 270.000 -3.953 -4.101 -4.285 -4.494
 315.000 -4.556 -4.744 -5.948 -0.0561

ALPHA (2) = -.552 BETA (2) = -.056 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -3.585 -3.3706 -4.4012 -4.4331 -5.799 -3.170
 45.000 -4.151
 90.000 -3.690 -3.911 -4.4019 -4.4843 -5.712
 135.000 -3.837 -4.165 -5.424 .3927
 180.000 -3.898 -4.581 -4.598 -4.916 -6.768
 225.000 -5.804 .3751

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET BASE

(RE4H13)

ALPHA (2) = -.552 BETA (2) = -.056

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3631	-.3650	-.3968			-.5027	
315.000			-.4660	-.4678	-.5748		-.0767

ALPHA (2) = -.486 BETA (3) = 3.950 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3928	-.4020	-.4112	-.4237	-.5138	-.3285	
45.000			-.4247				
90.000		-.4029	-.4216	-.4273	-.4400	-.4540	
135.000			-.4169	-.4460	-.5049		.2086
180.000		-.4046	-.4472	-.4996	-.6837	-.7869	
225.000					-.5697		.4577
270.000	-.3966	-.3978	-.4177			-.5848	
315.000			-.4650	-.4960	-.6121		-.1173

ALPHA (3) = 4.029 BETA (1) = -.069 MACH = 1.1030 RN/L = 4.3205 PO = 2104.8 P = 982.12

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3917	-.3966	-.4232	-.4462	-.5800	-.3226	
45.000			-.4440				
90.000		-.4004	-.4174	-.4249	-.4565	-.6801	
135.000			-.4178	-.4534	-.5640		.4430
180.000		-.4300	-.4792	-.5084	-.5103	-.7514	
225.000					-.5784		.3449
270.000	-.3951	-.3949	-.4261			-.5306	
315.000			-.4697	-.5167	-.6548		-.1314

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231AB0 OTS(SRB=N ORB=N+)

ET BASE

(RE4H14) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.963 BETA (1) = .006 MACH = 1.2512 RN/L = 4.3841 PO = 2109.1 P = 812.89

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.2802 -.2810 -.3391 -.3987 -.4853 -.1455
 45.000 -.3524
 90.000 -.2890 -.3009 -.3001 -.3187 -.4959
 135.000 -.2930 -.3340 -.4403 .3893
 180.000 -.3080 -.3516 -.3861 -.3822 -.4964
 225.000 -.4606 .3163
 270.000 -.2803 -.2751 -.3053 -.4895
 315.000 -.3760 -.4151 -.5216 -.0297

ALPHA (2) = -.492 BETA (1) = -4.006 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.2766 -.2819 -.3186 -.3512 -.4689 -.1846
 45.000 -.3772
 90.000 -.3033 -.3151 -.3187 -.3335 -.4858
 135.000 -.3186 -.3518 -.4178 .6302
 180.000 -.2997 -.3120 -.3213 -.4038 -.4339
 225.000 -.4328 .2407
 270.000 -.2647 -.2610 -.3109 -.4961
 315.000 -.3824 -.4018 -.4858 -.0138

ALPHA (2) = -.466 BETA (2) = .003 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.2618 -.2515 -.3082 -.3626 -.4703 -.1493
 45.000 -.3210
 90.000 -.2662 -.2780 -.2776 -.2998 -.4941
 135.000 -.2942 -.3409 -.4535 .4592
 180.000 -.2974 -.3258 -.3425 -.3550 -.4234
 225.000 -.4368 .3665

ORIGINAL PAGE IS
 OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-0231A80 OTS(SRB=N GRB=N+)

ET BASE

(RE4H14)

ALPHA (2) = -.466 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2575	-.2539	-.2934			-.5020	
315.000			-.3707	-.4283	-.5329		-.0090

ALPHA (2) = -.522 BETA (3) = 4.009 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2728		-.2892	-.3170	-.3463	-.4645	-.1923
45.000			-.3592				
90.000			-.2788	-.3066	-.2900	-.3850	-.5101
135.000				-.2986	-.3260	-.3928	.1776
180.000			-.2892	-.3547	-.3886	-.4693	-.5903
225.000					-.4008		.4635
270.000	-.2845	-.2772	-.3249			-.4439	
315.000			-.3097	-.4717	-.5464		-.0172

ALPHA (3) = 3.996 BETA (1) = .000 MACH = 1.2453 RN/L = 4.3815 PO = 2109.8 P = 819.58

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2699		-.2552	-.3065	-.3238	-.4387	-.1819
45.000			-.3227				
90.000			-.2691	-.2805	-.2855	-.2994	-.4805
135.000				-.2950	-.3197	-.4151	.4769
180.000			-.3134	-.3457	-.4023	-.3964	-.4763
225.000						-.4242	.3858
270.000	-.2564	-.2621	-.2997			-.3999	
315.000			-.2985	-.4716	-.5508		-.0166

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET BASE

(RE4H15) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 RREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.910 BETA (1) = -.006 MACH = 1.4040 RN/L = 4.2694 PO = 2117.6 P = 661.67

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2111	-.1948	-.2128	-.2278	-.3027	-.1852	
45.000			-.2137				
90.000		-.1928	-.2950	-.2753	-.2589	-.4015	
135.000			-.2478	-.2873	-.3627		.4204
180.000		-.2392	-.2512	-.2660	-.2771	-.3486	
225.000					-.3638		.3032
270.000	-.2094	-.2139	-.2512			-.4021	
315.000			-.2455	-.3111	-.3962		-.0690

ALPHA (2) = -.409 BETA (1) = -.4009 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2107	-.1908	-.2105	-.2309	-.3162	-.1632	
45.000			-.2273				
90.000		-.2430	-.2418	-.2444	-.2515	-.3584	
135.000			-.3016	-.3611	-.2825		.5601
180.000		-.2347	-.2482	-.2644	-.2969	-.3132	
225.000					-.3241		.2228
270.000	-.2046	-.2057	-.2471			-.3289	
315.000			-.2224	-.2908	-.3917		-.0457

ALPHA (2) = -.446 BETA (2) = .000 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2062	-.1804	-.2062	-.2263	-.3179	-.1750	
45.000			-.2169				
90.000		-.2193	-.2253	-.2211	-.2278	-.4019	
135.000			-.2420	-.2929	-.3591		.5118
180.000		-.2327	-.2639	-.3425	-.3084	-.3951	
225.000					-.3356		.3461

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

ET BASE

(RE4H15)

ALPHA (2) = -.446 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2065	-.2088	-.2394			-.3956	
315.000			-.2169	-.2520	-.3784		-.0455

ALPHA (2) = -.509 BETA (3) = 4.009 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2097		-.2118	-.2342	-.2469	-.3357	-.1654
45.000				-.2423			
90.000			-.2150	-.2173	-.2165	-.2215	-.3562
135.000				-.2133	-.2263	-.2792	.1986
180.000			-.2142	-.2727	-.3103	-.3195	-.4643
225.000					-.2709		.4307
270.000	-.2211	-.2187	-.2544			-.3683	
315.000			-.2070	-.2120	-.3537		-.0505

ALPHA (3) = 3.848 BETA (1) = -.006 MACH = 1.4000 RN/L = 4.2776 PO = 2121.1 P = 666.55

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.1952		-.1724	-.2386	-.2630	-.3645	-.0714
45.000				-.2096			
90.000			-.2059	-.2224	-.2207	-.2597	-.4035
135.000				-.2519	-.3006	-.3387	.4999
180.000			-.2170	-.2080	-.3370	-.2651	-.3333
225.000					-.3143		.3842
270.000	-.1914	-.1903	-.2150			-.3785	
315.000			-.1980	-.2909	-.3320		.0422

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

ET BASE

(RE4H16) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.986 BETA (1) = -.012 MACH = .90160 RN/L = 4.2050 PO = 2099.2 P = 1239.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -0.3774 -.3930 -.4126 -.4257 -.4582 -.7073
 45.000 -.4467
 90.000 -.3875 -.4296 -.4639 -.5831 -.8216
 135.000 -.3995 -.4535 -.6059 .2585
 180.000 -.3615 -.3910 -.3940 -.4669 -.6375
 225.000 -.7183 .2558
 270.000 -0.3878 -.3845 -.4009 -.6452
 315.000 -.4360 -.5017 -.6580 -.4350

ALPHA (2) = -.350 BETA (1) = -4.031 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1235.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -0.4034 -.3951 -.4030 -.4364 -.4550 -.6976
 45.000 -.4284
 90.000 -.3890 -.4301 -.5170 -.5570 -.8640
 135.000 -.3803 -.4357 -.6614 .4703
 180.000 -.3677 -.3917 -.4205 -.5158 -.8348
 225.000 -.6900 .1427
 270.000 -0.4012 -.3837 -.4128 -.6421
 315.000 -.4780 -.5613 -.6717 -.4171

ALPHA (2) = -.301 BETA (2) = -.016 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1235.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -0.3557 -.3543 -.4031 -.3919 -.4865 -.6671
 45.000 -.4379
 90.000 -.3921 -.4211 -.4644 -.5755 -.7861
 135.000 -.4037 -.4706 -.6340 .3709
 180.000 -.3594 -.3712 -.3570 -.4666 -.6223
 225.000 -.6662 .3411

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

ET BASE

(RE4H16)

ALPHA (2) = -.301 BETA (2) = -.016

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000		-.3603	-.3799	-.3767			-.5876
315.000				-.3959	-.4273	-.6666	-.3983

ALPHA (2) = -.317 BETA (3) = 4.000 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1236.1

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3751		-.3790	-.4036	-.4058	-.4474	-.6798
45.000				-.4445			
90.000			-.3665	-.3922	-.3973	-.5257	-.8043
135.000				-.3932	-.4078	-.5533	.0771
180.000			-.3860	-.3938	-.4054	-.4973	-.7301
225.000						-.7414	.3373
270.000	-.3723	-.3745	-.3807				-.5233
315.000			-.3939	-.4227	-.5909		-.4159

ALPHA (3) = 3.947 BETA (1) = -.019 MACH = .90070 RN/L = 4.2030 PO = 2098.5 P = 1239.8

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3713		-.3793	-.4056	-.4117	-.4664	-.6821
45.000				-.4046			
90.000			-.3803	-.3935	-.4299	-.5682	-.8340
135.000				-.4192	-.5038	-.6634	.4210
180.000			-.3496	-.3791	-.3753	-.4721	-.6394
225.000						-.6715	.3723
270.000	-.3751	-.3771	-.3851				-.4812
315.000			-.3945	-.4185	-.5680		-.4200

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DATE 27 JUL 76

TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=N ORB=N-)

ET BASE

(REWH17) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.020 BETA (1) = -.069 MACH = 1.0966 RN/L = 4.3161 PO = 2104.8 P = 990.02

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

P/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3852		-.3951	-.4448	-.4923	-.6236	-.3085	
45.000				-.4463				
90.000			-.4244	-.4417	-.4342	-.4381	-.4565	
135.000				-.4169	-.4436	-.5324		.3100
180.000			-.3974	-.3797	-.4485	-.5150	-.7016	
225.000					-.5662			.3034
270.000		-.4107	-.4231	-.4303		-.4446		
315.000			-.4685	-.5020	-.6231			-.0695

ALPHA (2) = -.479 BETA (1) = -4.069 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 994.44

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

P/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3865		-.4114	-.4195	-.4369	-.5359	-.3295	
45.000				-.4512				
90.000			-.4224	-.4334	-.4491	-.4706	-.6775	
135.000				-.4447	-.4814	-.6308		.6140
180.000			-.3928	-.3991	-.4181	-.5121	-.7143	
225.000					-.5162			.2372
270.000		-.4012	-.4138	-.4351		-.4485		
315.000			-.4628	-.4804	-.5023			-.0655

ALPHA (2) = -.483 BETA (2) = -.056 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 994.44

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

P/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3514		-.3798	-.4042	-.4405	-.5845	-.3171	
45.000				-.3959				
90.000			-.3959	-.4205	-.4401	-.5134	-.5763	
135.000				-.3889	-.4173	-.5389		.3964
180.000			-.3555	-.3537	-.4243	-.4860	-.5732	
225.000					-.5666			.3898

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

ET BASE

(RE4H17)

ALPHA (2) = -.489 BETA (2) = -.056

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3746	-.3867	-.4051			-.5233	
315.000			-.4007	-.4217	-.5272		-.0744

ALPHA (2) = -.486 BETA (3) = 3.947 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3917		-.4071	-.4230	-.4369	-.5348	-.3261
45.000				-.4347			
90.000			-.4105	-.4245	-.4270	-.4346	-.4515
135.000				-.4269	-.4477	-.5099	.2200
180.000			-.4015	-.4061	-.4542	-.6304	.0000
225.000						-.5397	.4713
270.000	-.4010	-.4079	-.4216			-.6097	
315.000			-.4907	-.5084	-.6335		-.1147

ALPHA (3) = 3.983 BETA (1) = -.063 MACH = 1.1056 RN/L = 4.3164 PO = 2104.1 P = 978.63

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3861		-.4034	-.4215	-.4490	-.5772	-.3191
45.000				-.4405			
90.000			-.4164	-.4380	-.4510	-.4922	-.6788
135.000				-.4232	-.4517	-.5512	.4485
180.000			-.3649	-.3776	-.4140	-.5432	-.7267
225.000						-.5525	.3499
270.000	-.3931	-.4070	-.4278			-.6073	
315.000			-.4571	-.4845	-.6283		-.1279

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

ET BASE

(RE4H18) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-GB = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .000 MACH = 1.2490 RN/L = 4.3771 PO = 2108.4 P = 815.07

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2917		-.2950	-.3494	-.4130	-.4896	-.1465	
45.000				-.3644				
90.000			-.3154	-.3346	-.3362	-.3483	-.4938	
135.000				-.3137	-.3380	-.4419		.4184
180.000			-.2863	-.2889	-.3441	-.3912	-.5425	
225.000						-.4480		.3523
270.000	-.2926	-.2911	-.3318				-.4862	
315.000			-.3641	-.3868	-.4983			-.0297

ALPHA (2) = -.429 BETA (1) = -4.006 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2884		-.3005	-.3384	-.3686	-.4823	-.1838	
45.000				-.3277				
90.000			-.3187	-.3283	-.3366	-.3470	-.4817	
135.000				-.3401	-.3676	-.4308		.6369
180.000			-.3061	-.3102	-.3166	-.3670	-.4571	
225.000						-.4031		.2592
270.000	-.2792	-.2797	-.3318				-.4951	
315.000			-.3844	-.4063	-.4829			-.0116

ALPHA (2) = -.423 BETA (2) = .003 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2733		-.2702	-.3217	-.3780	-.4806	-.1506	
45.000				-.3559				
90.000			-.2871	-.2963	-.2957	-.3181	-.4858	
135.000				-.2733	-.3225	-.4422		.4787
180.000			-.2920	-.3040	-.3487	-.3690	-.5442	
225.000						-.4476		.3905

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

ET BASE

(RE4H18)

ALPHA (2) = -.423 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2710	-.2708	-.3157				-.5090
315.000			-.3924	-.4115	-.5212		-.0081

ALPHA (2) = -.416 BETA (3) = 4.009 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2926	-.3062	-.3111	-.3665	-.4794	-.1923	
45.000			-.4111				
90.000		-.2997	-.3112	-.3050	-.3774	-.5138	
135.000			-.3111		-.4180		.1809
180.000		-.2877			-.4302	-.6219	
225.000					-.3969		.4687
270.000	-.3024					-.4382	
315.000				.551			-.0160

ALPHA (3) = 3.993 BETA (3) = .003 MACH = 1.2456 RN/L = 4.3674 PO = 2108.4 P = 818.72

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2795	-.2739	-.3198	-.3421	-.4513	-.1828	
45.000			-.3533				
90.000		-.2907	-.3024	-.3055	-.3198	-.4607	
135.000			-.2898	-.3155	-.4089		.4821
180.000		-.3093	-.3070	-.3461	-.3694	-.5509	
225.000					-.4143		.3923
270.000	-.2788	-.2819	-.3262			-.4100	
315.000			-.3429	-.4807	-.5519		-.0166

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

ET BASE

(RE4H19) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LPEF = 1290.3000 IN. YMRP = .0000 IN.
 BREP = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.848 BETA (1) = -.006 MACH = 1.4069 RN/L = 4.2698 PO = 2120.4 P = 659.90

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2275		-.2186	-.2402	-.2537	-.3288	-.1836	
45.000				-.2462				
90.000			-.2408	-.2428	-.2373	-.2445	-.3853	
135.000				-.2537	-.2832	-.3577		.4509
180.000			-.2518	-.2615	-.2858	-.2989	-.4184	
225.000						-.3711		.3252
270.000	-.2245	-.2370	-.2752				-.3834	
315.000			-.2638	-.3099	-.3869			-.0651

ALPHA (2) = -.357 BETA (1) = -.4009 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2379		-.2263	-.2499	-.2638	-.3491	-.1641	
45.000				-.2431				
90.000			-.2797	-.2723	-.2714	-.2669	-.3506	
135.000				-.3374	-.3531	-.2689		.5675
180.000			-.2473	-.2434	-.2652	-.3106	-.3328	
225.000						-.2790		.2438
270.000	-.2177	-.2289	-.2585				-.3377	
315.000			-.2558	-.3061	-.3774			-.0421

ALPHA (2) = -.353 BETA (2) = .000 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2222		-.1992	-.2254	-.2462	-.3311	-.1731	
45.000				-.2287				
90.000			-.2409	-.2534	-.2450	-.2461	-.3873	
135.000				-.2746	-.3038	-.3531		.5282
180.000			-.2412	-.2335	-.2651	-.2666	-.4184	
225.000						-.3547		.3671

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ARC11-0231A80 QTS(SRB=N ORB=N-) ET BASE

(RE4H19)

ALPHA (2) = -.363 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2216	-.2292	-.2690			-.3930	
315.000			-.2279	-.2809	-.3672		-.0427

ALPHA (2) = -.462 BETA (3) = 4.012 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2308	-.2346	-.2531	-.2673	-.3517	-.1651	
45.000			-.2651				
90.000		-.2372	-.2379	-.2346	-.2440	-.3483	
135.000			-.2398	-.2591	-.3051		.1975
180.000		-.2236	-.2382	-.3044	-.3231	-.4858	
225.000					-.2942		.4393
270.000	-.2540	-.2477	-.2810			-.3545	
315.000			-.2385	-.2733	-.3859		-.0466

ALPHA (3) = 3.986 BETA (1) = -.003 MACH = 1.4018 RN/L = 4.2745 PO = 2122.5 P = 665.25

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2156	-.2076	-.2590	-.2861	-.3759	-.0671	
45.000			-.2445				
90.000		-.2144	-.2785	-.2694	-.3429	-.3978	
135.000			-.2863	-.3105	-.3309		.5206
180.000		-.2185	-.2115	-.2368	-.2396	-.4150	
225.000					-.3180		.4035
270.000	-.2092	-.2114	-.2409			-.3774	
315.000			-.2251	-.3248	-.3551		.0488

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OF POOR QUALITY

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ARC11-0231A80 OTS(SRB=N CRB=N) ET BASE

(RE4H20) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1230.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.868 BETA (1) = -.016 MACH = .59200 RN/L = 3.3619 PO = 2105.5 P = 1661.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3752	-.3110	-.3155	-.3873	-.7287	-.8781		
45.000			-.3759					
90.000		-.3710	-.4211	-.4522	-.6109	-.8142		
135.000			-.3796	-.4365	-.6419		.2096	
180.000		-.3493	-.3769	-.3983	-.4588	-.7097		
225.000					-.7552		.1315	
270.000	-.3593	-.3511	-.3716			-.6940		
315.000			-.3663	-.3799	-.5148		-.5925	

ALPHA (2) = -.327 BETA (1) = -4.038 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3432	-.2690	-.3132	-.3297	-.6835	-.8890		
45.000			-.3703					
90.000		-.3611	-.4346	-.4820	-.5757	-.7813		
135.000			-.3761	-.3910	-.6684		.3224	
180.000		-.3591	-.3748	-.3875	-.4505	-.7147		
225.000					-.6684		.0737	
270.000	-.3243	-.3347	-.3387			-.6237		
315.000			-.3342	-.3297	-.5034		-.5957	

ALPHA (2) = -.291 BETA (2) = -.022 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3574	-.3037	-.3018	-.3516	-.5968	-.8782		
45.000			-.3633					
90.000		-.3585	-.4152	-.4493	-.5801	-.7712		
135.000			-.3789	-.4348	-.6412		.2401	
180.000		-.3355	-.3760	-.3974	-.4561	-.7079		
225.000					-.7425		.1739	

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H20)

ALPHA (2) = -.291 BETA (2) = .022

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3536	-.3307	-.3547			-.6990	
315.000			-.3523	-.3599	-.4517		-.5945

ALPHA (2) = -.386 BETA (3) = 3.994 MACH = 59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3286	-.2736	-.3001	-.3124	-.6541	-.8845	
45.000			-.3378				
90.000		-.3502	-.3643	-.3994	-.5618	-.7320	
135.000			-.3406	-.3540	-.5130		.0643
180.000		-.3251	-.3430	-.3337	-.4554	-.6759	
225.000					-.7540		.2308
270.000	-.3142	-.3179	-.3468			-.7033	
315.000			-.3310	-.3358	-.4581		-.5762

ALPHA (3) = 4.016 BETA (1) = -.022 MACH = .60330 RN/L = 3.4092 PO = 2105.5 P = 1646.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3424	-.2664	-.2852	-.3331	-.7006	-.8937	
45.000			-.3594				
90.000		-.3460	-.3398	-.4409	-.5326	-.7076	
135.000			-.3553	-.4179	-.6444		.2893
180.000		-.3294	-.3552	-.3506	-.4383	-.6809	
225.000					-.7468		.2436
270.000	-.3235	-.3253	-.3229			-.6353	
315.000			-.3392	-.3467	-.4452		-.5380

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H21) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.977 BETA (1) = -.016 MACH = .90170 RN/L = 4.2042 PO = 2099.2 P = 1238.9

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3768		.3935	-.4112	-.4140	-.4554	-.7075	
45.000				-.4449				
90.000		-.323		-.4189	-.4556	-.5787	-.8120	
135.000				-.3952	-.4453	-.6192		.2631
180.000		-.3511		-.3823	-.4005	-.4709	-.6253	
225.000						-.7113		.2619
270.000	-.3790	-.3813		-.3920			-.6371	
315.000				-.4217	-.5088	-.6438		-.4350

ALPHA (2) = -.327 BETA (1) = -4.028 MACH = .90320 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3266		-.3867	-.4076	-.4173	-.4576	-.6968	
45.000				-.4253				
90.000		-.3900		-.4263	-.5059	-.5595	-.8709	
135.000				-.3747	-.4144	-.6657		.4704
180.000		-.3723		-.3948	-.4097	-.5305	-.8657	
225.000						-.6973		.1421
270.000	-.3937	-.3836		-.4024			-.6286	
315.000				-.4639	-.5536	-.6593		-.4178

ALPHA (2) = -.317 BETA (2) = -.012 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3598		-.3635	-.4133	-.4037	-.4862	-.6639	
45.000				-.4339				
90.000		-.3914		-.4237	-.4536	-.5732	-.8117	
135.000				-.4095	-.4712	-.6424		.3671
180.000		-.3594		-.3729	-.3599	-.4750	-.6230	
225.000						-.6930		.3356

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H21)

ALPHA (2) = -.317 BETA (2) = -.012

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000	-.3608	-.3919	-.3859				-.5850
315.000			-.4137	-.4377	-.7039		-.3934

ALPHA (2) = -.350 BETA (3) = 4.000 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3659		-.3778	-.4042	-.4089	-.4428	-.6859
45.000				-.4610			
90.000			-.3591	-.3943	-.3927	-.5310	-.8095
135.000				-.3933	-.4044	-.5534	.0777
180.000			-.3991	-.3986	-.4198	-.5070	-.7106
225.000						-.7383	.3358
270.000	-.3753	-.3715	-.3770			-.5074	
315.000			-.3943	-.4137	-.5972		-.4174

ALPHA (3) = 3.977 BETA (1) = -.012 MACH = .90240 RN/L = 4.2041 PO = 2098.5 P = 1237.5

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3627		-.3618	-.4020	-.4043	-.4637	-.6773
45.000				-.4046			
90.000			-.3753	-.3949	-.4379	-.5591	-.8113
135.000				-.4149	-.5003	-.6558	.4250
180.000			-.3503	-.3753	-.3673	-.4663	-.6172
225.000						-.6663	.3709
270.000	-.3670	-.3721	-.3792			-.4763	
315.000			-.3837	-.4028	-.5748		-.4152

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H22) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RK/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = -.063 MACH = 1.0978 RN/L = 4.3175 PO = 2104.8 P = 989.46

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP							
R/ROD		.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI									
.000	-.3856		-.3917	-.4371	-.4849	-.6205	-.3052		
45.000				-.4438					
90.000			-.4154	-.4260	-.4229	-.4310	-.4542		
135.000				-.4167	-.4431	-.5520		.3090	
180.000			-.3912	-.4042	-.4748	-.5234	-.7027		
225.000						-.5778		.2995	
270.000	-.4018	-.4144	-.4270				-.4445		
315.000			-.4595	-.4953	-.6097			-.0695	

ALPHA (2) = -.525 BETA (1) = -.4069 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP							
R/ROD		.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI									
.000	-.3905		-.4091	-.4213	-.4363	-.5332	-.3294		
45.000				-.4492					
90.000			-.4163	-.4329	-.4158	-.4609	-.6761		
135.000				-.4475	-.4777	-.6200		.6084	
180.000			-.4037	-.4004	-.4184	-.5190	-.6717		
225.000						-.5183		.2382	
270.000	-.3990	-.4141	-.4327				-.4491		
315.000			-.4501	-.4806	-.5977			-.0570	

ALPHA (2) = -.439 BETA (2) = -.056 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP							
R/ROD		.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI									
.000	-.3538		-.3736	-.3965	-.4305	-.5740	-.3163		
45.000				-.3919					
90.000			-.3850	-.4096	-.4261	-.5069	-.5735		
135.000				-.3902	-.4161	-.5424		.3944	
180.000			-.3697	-.3793	-.4603	-.5064	-.7168		
225.000					-.5755			.3795	

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ARC11-0231A80 OTS(SRS=N ORB=N) ET BASE

(RE4H22)

ALPHA (2) = -.439 BETA (2) = -.056

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/R00	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3648	-.3790	-.4054			-.5242
315.000				-.4004	-.4162	-.5244	-.0753

ALPHA (2) = -.482 BETA (3) = 3.950 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/R00	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3956		-.4080	-.4195	-.4323	-.5285	-.3280
45.000				-.4323			
90.000			-.4079	-.4244	-.4411	-.4523	
135.000				-.4229	-.4498	-.5086	.2148
180.000			-.3999	-.4122	-.4858	-.6575	-.8014
225.000						-.5573	.4648
270.000	-.4034	-.4047	-.4185			-.6075	
315.000			-.4749	-.5116	-.6268		-.1143

ALPHA (3) = 3.963 BETA (1) = -.063 MACH = 1.1046 RN/L = 4.3189 PO = 2104.1 P = 979.83

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/R00	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3919		-.3970	-.4231	-.4454	-.5753	-.3199
45.000				-.4476			
90.000			-.4068	-.4315	-.4345	-.4761	-.6781
135.000				-.4202	-.4487	-.5586	.4510
180.000			-.4117	-.4039	-.4686	-.5076	-.7690
225.000						-.5515	.3441
270.000	-.3950	-.3974	-.4304			-.5422	
315.000			-.4645	-.4951	-.6359		-.1290

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H23) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.917 BETA (1) = .003 MACH = 1.2460 RN/L = 4.3725 PO = 2108.4 P = 818.30

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2942	-.2956	-.3522	-.4137	-.4919	-.1502	
45.000			-.3658				
90.000		-.3122	-.3254	-.3253	-.3397	-.4982	
135.000			-.3123	-.3407	-.4475		.4016
180.000		-.2991	-.3417	-.3551	-.3664	-.5340	
225.000					-.4705		.3257
270.000	-.2913	-.2953	-.3273			-.4900	
315.000			-.3692	-.3933	-.5076		-.0347

ALPHA (2) = -.446 BETA (1) = -4.006 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2866	-.2956	-.3316	-.3664	-.4782	-.1863	
45.000			-.3237				
90.000		-.3148	-.3253	-.3322	-.3423	-.4666	
135.000			-.3329	-.3624	-.4199		.6349
180.000		-.3018	-.3042	-.3047	-.3620	-.3902	
225.000					-.4144		.2460
270.000	-.2737	-.2729	.3221			-.4954	
315.000			-.3929	-.4096	-.4627		-.0137

ALPHA (2) = -.456 BETA (2) = .003 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2704	-.2644	-.3183	-.3718	-.4770	-.1482	
45.000			-.3473				
90.000		-.2782	-.2868	-.2884	-.3062	-.4913	
135.000			-.2862	-.3329	-.4506		.4724
180.000		-.3108	-.3332	-.3644	-.3718	-.5209	
225.000					-.4543		.3752

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H23)

ALPHA (2) = -.456 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2679	-.2627	-.3053			-.5067	
315.000			-.3841	-.1773	-.5274		-.0077

ALPHA (2) = -.439 BETA (3) = 4.012 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2891	-.3001	-.3317	-.3605	-.4739	-.1934	
45.000			-.3735				
90.000		-.2946	-.3189	-.3314	-.3970	-.5120	
135.000			-.3078	-.3480	-.4019		.1776
180.000		-.2933	-.3384	-.3754	-.4443	-.5889	
225.000					-.4054		.4618
270.000	-.2988	-.2941	-.3463			-.4411	
315.000			-.3565	-.4684	-.5535		-.0185

ALPHA (3) = 3.996 BETA (1) = .000 MACH = 1.2455 RN/L = 4.3668 PO = 2109.1 P = 819.16

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2774	-.2676	-.3147	-.3342	-.4456	-.1820	
45.000			-.3398				
90.000		-.2829	-.2960	-.3301	-.3122	-.4604	
135.000			-.2947	-.3171	-.4139		.4788
180.000		-.3142	-.3359	-.3679	-.3743	-.5517	
225.000					-.4227		.3857
270.000	-.2744	-.2749	-.3147			-.4043	
315.000			-.3235	-.4750	-.5532		-.0176

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H24) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.884 BETA (1) = -.003 MACH = 1.4001 RN/L = 4.2484 PO = 2114.0 P = 664.19

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

P/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2256		-.2165	-.2335	-.2492	-.3209	-.1897	
45.000				-.2364				
90.000			-.2318	-.2418	-.2329	-.2373	-.3977	
135.000				-.2482	-.2914	-.3662		.4211
180.000			-.2499	-.2853	-.3397	-.3260	-.4298	
225.000						-.3815		.3189
270.000	-.2299	-.2196	-.2648				-.3946	
315.000			-.2593	-.3225	-.3917			-.0707

ALPHA (2) = -.370 BETA (1) = -4.009 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

P/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2143		-.1992	-.2249	-.2456	-.3340	-.1629	
45.000				-.2411				
90.000			-.2696	-.2633	-.2616	-.2632	-.3526	
135.000				-.3128	-.3170	-.2684		.5645
180.000			-.2366	-.2389	-.2459	-.2845	-.2918	
225.000						-.3085		.2354
270.000	-.2140	-.2146	-.2630				-.3341	
315.000			-.2456	-.3055	-.3979			-.0432

ALPHA (2) = -.370 BETA (2) = .000 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

P/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2160		-.1916	-.2225	-.2405	-.3297	-.1738	
45.000				-.2270				
90.000			-.2345	-.2331	-.2352	-.2407	-.3926	
135.000				-.2675	-.2977	-.3660		.5208
180.000			-.2375	-.2733	-.3347	-.3062	-.4194	
225.000						-.3510		.3561

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H24)

ALPHA (2) = -.370 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2159	-.2222	-.2564			-.4021	
315.000			-.2248	-.2716	-.3796		-.0481

ALPHA (2) = -.429 BETA (3) = 4.012 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2219	-.2246	-.2430	-.2597	-.3454	-.1639	
45.000			-.2560				
90.000		-.2270	-.2298	-.2266	-.2340	-.3508	
135.000			-.2295	-.2497	-.3015		.1984
180.000		-.2224	-.2607	-.3109	-.3367	-.4657	
225.000					-.2941		.4369
270.000	-.2343	-.2341	-.2649			-.3626	
315.000			-.2210	-.2405	-.3723		-.0470

ALPHA (3) = 3.894 BETA (1) = .000 MACH = 1.3947 RN/L = 4.2558 PO = 2114.0 P = 669.27

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2045	-.2024	-.2538	-.2761	-.3734	-.0712	
45.000			-.2366				
90.000		-.2052	-.2410	-.2865	-.3379	-.4046	
135.000			-.2833	-.3166	-.3426		.5140
180.000		-.2194	-.2470	-.2832	-.2562	-.4077	
225.000					-.3237		.3921
270.000	-.2020	-.2035	-.2340			-.3798	
315.000			-.2146	-.3169	-.3576		.0497

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

ET BASE

(REWH25) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.020 BETA (1) = -.063 MACH = 1.0964 RN/L = 4.3166 PO = 2104.1 P = 989.88

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4194		-.4252	-.4713	-.5231	-.6486	-.3102	
45.000				-.4851				
90.000			-.4550	-.4563	-.4618	-.4649	-.4589	
135.000				-.4536	-.4762	-.5778		.3088
180.000			-.4230	-.4394	-.4983	-.5367	-.7482	
225.000						-.6035		.2988
270.000		-.4354	-.4468	-.4610			-.4487	
315.000				-.4891	-.5195	-.6339		-.0723

ALPHA (2) = -.482 BETA (1) = -4.069 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4171		-.4416	-.4562	-.4717	-.5846	-.3303	
45.000				-.4751				
90.000			-.4483	-.4667	-.4792	-.4930	-.6825	
135.000				-.4719	-.5007	-.6421		.6111
180.000			-.4201	-.4261	-.4462	-.5585	-.7104	
225.000						-.5274		.2360
270.000		-.4280	-.4437	-.4644			-.4538	
315.000				-.4952	-.5054	-.6206		-.0672

ALPHA (2) = -.489 BETA (2) = -.059 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 995.34

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3798		-.3993	-.4279	-.4609	-.5025	-.3182	
45.000				-.4241				
90.000			-.4148	-.4331	-.4459	-.5065	-.5743	
135.000				-.4165	-.4396	-.5553		.3927
180.000			-.3994	-.4099	-.4754	-.5102	-.7537	
225.000						-.5396		.3739

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

ET BASE

(RE4H25)

ALPHA (2) = -.489 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3950	-.4064	-.4318			-.5328	
315.000			-.4257	-.4437	-.5542		-.0761

ALPHA (2) = -.453 BETA (3) = 3.950 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4252		-.4408	-.4542	-.4691	-.5744	-.3303
45.000				-.4672			
90.000			-.4370	-.4552	-.4607	-.4633	-.4581
135.000				-.4522	-.4747	-.5250	.2153
180.000			-.4298	-.4558	-.5077	-.6723	-.9277
225.000						-.5896	.4676
270.000	-.4347	-.4349	-.4498			-.6213	
315.000			-.5236	-.5462	-.6554		-.1175

ALPHA (3) = 4.029 BETA (1) = -.059 MACH = 1.1031 RN/L = 4.3201 PO = 2102.0 P = 980.74

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4206		-.4264	-.4494	-.4751	-.6019	-.3223
45.000				-.4763			
90.000			-.4372	-.4533	-.4567	-.4593	-.6835
135.000				-.4397	-.4731	-.5952	.4468
180.000			-.4442	-.4224	-.4784	-.5227	-.7980
225.000						-.5755	.3431
270.000	-.4228	-.4267	-.4593			-.5621	
315.000			-.4859	-.5145	-.6458		-.1305

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

ET BASE

(RE4H26) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.983 BETA (1) = .000 MACH = 1.2472 RN/L = 4.3516 PO = 2107.7 P = 815.70

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3170	-.3208	-.3808	-.4464	-.4926	-.1493	
45.000			-.3903				
90.000		-.3375	-.3485	-.3500	-.3607	-.4982	
135.000			-.3370	-.3626	-.4638		.4001
180.000		-.3212	-.3626	-.3785	-.4003	-.5719	
225.000					-.4807		.3245
270.000	-.3140	-.3129	-.3529			-.4953	
315.000			-.3818	-.4088	-.5196		-.0327

ALPHA (2) = -.443 BETA (1) = -4.006 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3123	-.3290	-.3693	-.4047	-.5107	-.1858	
45.000			-.3728				
90.000		-.3463	-.3589	-.3612	-.3647	-.4871	
135.000			-.3516	-.3746	-.4372		.6322
180.000		-.3213	-.3226	-.3360	-.3942	-.4137	
225.000					-.4104		.2490
270.000	-.3015	-.3071	-.3653			-.5014	
315.000			-.4039	-.4199	-.4968		-.0118

ALPHA (2) = -.426 BETA (2) = .003 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2950	-.2893	-.3432	-.4051	-.4683	-.1521	
45.000			-.3259				
90.000		-.3031	-.3123	-.3111	-.3355	-.4923	
135.000			-.3123	-.3572	-.4708		.4667
180.000		-.3377	-.3445	-.3507	-.3626	-.5474	
225.000					-.3626		.3768

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

ET BASE

(RE4H261

ALPHA (2) = -.426 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2895	-.2874	-.3290			-.5134	
315.000				-.4099	-.4391	-.5360		-.0078

ALPHA (2) = -.456 BETA (3) = 4.016 MACH = 1.2481

RN/L

= 4.3581

PO

= 2107.7

P

= 815.72

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3099		-.3224	-.3526	-.3826	-.4948	-.1889
45.000					-.4210			
90.000				-.3181	-.3211	-.3197	-.3417	-.5067
135.000					-.3305	-.3653	-.4257	
180.000				-.3126	-.3483	-.4005	-.4576	-.6049
225.000							-.4189	.1795
270.000		-.3200	-.3192	-.3650				.4668
315.000				-.4244	-.4956	-.5566	-.4446	-.0149

ALPHA (3) = 4.020 BETA (1) = -.003 MACH = 1.2443

RN/L

= 4.3536

PO

= 2107.0

P

= 819.62

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2987		-.2931	-.3395	-.3610	-.4669	-.1851
45.000					-.3882			
90.000				-.3097	-.3182	-.3249	-.3350	-.4832
135.000					-.3171	-.3412	-.4334	
180.000				-.3361	-.3539	-.4117	-.4052	-.5751
225.000							-.4358	.4801
270.000		-.2993	-.2960	-.3379				.3928
315.000				-.3834	-.5020	-.5601	-.4215	-.0188

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OF POOR QUALITY

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

ET BASE

(RE4H27) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.895 BETA (1) = .000 MACH = 1.4005 RN/L = 4.2336 PO = 2109.8 P = 662.52

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	- .2577		-.2531	-.2720	-.2865	-.3520	-.1879	
45.000				-.2789				
90.000			-.2679	-.2706	-.2679	-.2748	-.3956	
135.000			-.2929	-.3440	-.4109			.4239
180.000			-.2862	-.2866	-.3136	-.3508	-.4367	
225.000						-.3617		.3161
270.000	-.2573	-.2615	-.3006				-.4004	
315.000			-.2658	-.2999	-.3916			-.0705

ALPHA (2) = -.353 BETA (1) = -4.006 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.93

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	- .2514		-.2460	-.2670	-.2890	-.3711	-.1664	
45.000				-.2666				
90.000			-.2943	-.3293	-.3427	-.3572	-.3560	
135.000			-.3558	-.3719	-.2797			.5642
180.000			-.2667	-.2690	-.2782	-.3332	-.3391	
225.000						-.3376		.2334
270.000	-.2382	-.2478	-.2846				-.3523	
315.000			-.2685	-.3053	-.3938			-.0479

ALPHA (2) = -.367 BETA (2) = .000 MACH = 1.3994 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	- .2420		-.2215	-.2512	-.2751	-.3536	-.1777	
45.000				-.2540				
90.000			-.2627	-.2621	-.2613	-.2667	-.3998	
135.000			-.2966	-.3256	-.3849			.5260
180.000			-.2709	-.2809	-.3613	-.3456	-.4423	
225.000						-.3560		.3548

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 CTS(SRB=N- ORB=N)

ET BASE

(RE4H27)

ALPHA (2) = -.357 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2431	-.2483	-.2869			-.4055	
315.000			-.2532	-.3147	-.3882		-.0484

ALPHA (2) = -.400 BETA (3) = 4.012 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2467	-.2506	-.2703	-.2901	-.3669	-.1607	
45.000			-.2860				
90.000		-.2542	-.2528	-.2512	-.2612	-.3509	
135.000			-.2522	-.2703	-.3183		.1980
180.000		-.2450	-.2738	-.3450	-.3513	-.4829	
225.000					-.3004		.4388
270.000	-.2594	-.2589	-.2914			-.3662	
315.000			-.2480	-.2900	-.3961		-.0485

ALPHA (3) = 3.983 BETA (1) = .000 MACH = 1.3983 RN/L = 4.2365 PO = 2109.9 P = 664.56

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2214	-.2253	-.2696	-.3025	-.3841	-.0706	
45.000			-.2643				
90.000		-.2243	-.2585	-.3017	-.3593	-.4018	
135.000			-.2812	-.3330	-.3537		.5146
180.000		-.2448	-.2577	-.3465	-.2993	-.4182	
225.000					-.3271		.3900
270.000	-.2216	-.2210	-.2510			-.3814	
315.000			-.2527	-.3634	-.3684		.0497

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H28) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -4.000 BETA (1) = -.016 MACH = .59820 RN/L = 3.3864 PO = 2123.2 P = 1666.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3420	-.2697	-.2872	-.3518	-.6798	-.8390		
45.000			-.3453					
90.000		-.3408	-.3937	-.4251	-.5572	-.7714		
135.000			-.3524	-.3985	-.6063		.2232	
180.000		-.3176	-.3494	-.3634	-.4384	-.6672		
225.000					-.7169		.1531	
270.000	-.3260	-.3245	-.3419			-.6553		
315.000			-.3419	-.3480	-.4885		-.5586	

ALPHA (2) = -.264 BETA (1) = -4.034 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3293	-.2691	-.2910	-.3146	-.6355	-.8650		
45.000			-.3447					
90.000		-.3341	-.4227	-.4695	-.5433	-.7650		
135.000			-.3580	-.3710	-.6403		.3285	
180.000		-.3269	-.3584	-.3998	-.4586	-.6834		
225.000					-.6649		.0850	
270.000	-.3157	.3112	-.3245			-.5967		
315.000			-.3238	-.3320	-.4623		-.5792	

ALPHA (2) = -.261 BETA (2) = -.019 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3187	-.2596	-.2589	-.3104	-.6554	-.8332		
45.000			-.3259					
90.000		-.3242	-.3781	-.4012	-.5307	-.7290		
135.000			-.3355	-.3920	-.6088		.2608	
180.000		-.3092	-.3394	-.3517	-.4356	-.6672		
225.000					-.7049		.1917	

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H28)

ALPHA (2) = -.261 BETA (2) = -.019

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3065	-.3016	-.3248				-.6407
315.000				-.3172	-.3166	-.4164		-.5554

ALPHA (2) = -.274 BETA (3) = 3.991 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1658.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3081		-.2634	-.2748	-.2998	-.6188	-.8641	
45.000				-.3190				
90.000			-.3217	-.3599	-.3804	-.4997	-.7095	
135.000				-.3231	-.3420	-.4953		.0748
180.000			-.2967	-.3344	-.3392	-.4429	-.6860	
225.000						-.7201		.2397
270.000	-.3098	-.3049	-.3348				-.6881	
315.000			-.3169	-.3241	-.4268			-.5568

ALPHA (3) = 4.013 BETA (1) = -.019 MACH = .59700 RN/L = 3.3862 PO = 2124.6 P = 1669.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3075		-.2408	-.2599	-.2968	-.6556	-.8467	
45.000				-.3258				
90.000			-.3153	-.3716	-.4215	-.4965	-.6550	
135.000				-.3334	-.3853	-.6146		.2986
180.000			-.3016	-.3279	-.3405	-.4313	-.6512	
225.000						-.7088		.2545
270.000	-.2945	-.2941	-.2937				-.6046	
315.000			-.3064	-.3115	-.4118			-.5156

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H29) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-09 = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.006 MACH = .90100 RN/L = 4.2493 PO = 2121.1 P = 1252.7

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.366		-3.389	-3.693	-3.788	-4.086	-7.078	
45.000				-3.996				
90.000			-3.476	-3.880	-4.209	-5.274	-7.582	
135.000				-3.585	-4.138	-5.722		.2645
180.000			-3.3252	-3.489	-3.547	-4.443	-6.089	
225.000						-6.891		.2664
270.000	-3.434	-3.448	-3.543			-5.898		
315.000			-3.818	-4.299	-5.818			-4.341

ALPHA (2) = -.320 BETA (1) = -4.022 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.541		-3.575	-3.618	-3.845	-4.052	-6.961	
45.000				-3.815				
90.000			-3.465	-4.034	-4.820	-5.154	-7.789	
135.000				-3.522	-3.950	-6.364		.4750
180.000			-3.336	-3.629	-4.089	-4.885	-7.360	
225.000						-6.525		.1529
270.000	-3.503	-3.422	-3.619			-5.822		
315.000			-4.126	-5.017	-5.887			-4.149

ALPHA (2) = -.310 BETA (2) = -.009 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.153		-3.148	-3.358	-3.487	-4.127	-6.717	
45.000				-3.774				
90.000			-3.361	-3.877	-4.333	-5.049	-6.978	
135.000				-3.605	-4.355	-5.914		.3759
180.000			-3.308	-3.264	-3.296	-4.461	-6.028	
225.000						-6.504		.3455

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H29)

ALPHA (2) = -.310 BETA (2) = -.009

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/D	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3169	-.3335	-.3332			-.5402	
315.000				-.3515	-.3814	-.5581		-.3986

ALPHA (2) = -.297 BETA (3) = 4.006 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/R/D	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3378		-.3573	-.3699	-.3803	-.4047	-.6757	
45.000				-.4063				
90.000			-.3306	-.3576	-.3706	-.4992	-.7756	
135.000				-.3533	-.3741	-.5154		.0861
180.000			-.3582	-.3615	-.3717	-.4781	-.7482	
225.000						-.7249		.3466
270.000	-.3456	-.3433	-.3478				-.4931	
315.000			-.3543	-.3924	-.5217			-.4070

ALPHA (3) = 3.986 BETA (1) = -.009 MACH = .89810 RN/L = 4.2418 PO = 2119.7 P = 1255.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/R/D	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3234		-.3232	-.3531	-.3620	-.4034	-.6858	
45.000				-.3590				
90.000			-.3271	-.3630	-.4097	-.5032	-.7188	
135.000				-.3708	-.4598	-.6151		.4240
180.000			-.3035	-.3279	-.3388	-.4458	-.6110	
225.000						-.6304		.3823
270.000	-.3322	-.3320	-.3321				-.4428	
315.000			-.3405	-.3537	-.4710			-.4125

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H30) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.016 BETA (1) = -.003 MACH = 1.0992 RN/L = 4.3334 PO = 2116.2 P = 992.05

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3950 -.4110 -.4600 -.5097 -.6362 -.3015
45.000 -.4590
90.000 -.4474 -.4751 -.4646 -.4553
135.000 -.4262 -.4522 -.5584 .3240
180.000 -.4003 -.4052 -.4211 -.5160 -.7365
225.000 -.5679 .3025
270.000 -.4293 -.4420 -.4471 -.4416
315.000 -.4876 -.5156 -.6284 -.0663

ALPHA (2) = -.370 BETA (1) = -4.006 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 997.00

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.4145 -.4371 -.4517 -.4645 -.5742 -.3262
45.000 -.4814
90.000 -.4502 -.4691 -.4796 -.4860 -.6762
135.000 -.4709 -.5037 -.6477 .6191
180.000 -.4202 -.4249 -.4436 -.5453 -.7156
225.000 -.5184 .2431
270.000 -.4246 -.4419 -.4568 -.4468
315.000 -.4616 -.5018 -.6162 -.0645

ALPHA (2) = -.343 BETA (2) = .003 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 997.00

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3619 -.3958 -.4149 -.4482 -.5872 -.3145
45.000 -.4223
90.000 -.4210 -.4486 -.4624 -.5038 -.6928
135.000 -.4012 -.4247 -.5390 .3977
180.000 -.3659 -.3823 -.3875 -.4949 -.7225
225.000 -.5669 .3898

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H30)

ALPHA (2) = -.343 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3891	-.4083	-.4213			-.5319	
315.000				-.4093	-.4296	-.5385		-.0743

ALPHA (2) = -.370 BETA (3) = 4.009 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4220		-.4364	-.4496	-.4657	-.5704	-.3241	
45.000			-.4591					
90.000			-.4327	-.4434	-.4478	-.4551	-.4512	
135.000				-.4461	-.4732	-.5316		.2304
180.000			-.4205	-.4291	-.4318	-.5553	.0000	
225.000						-.5674		.4874
270.000	-.4289	-.4317	-.4491				-.6553	
315.000			-.5171	-.5435	-.6589			-.1160

ALPHA (3) = 3.894 BETA (1) = -.003 MACH = 1.1097 RN/L = 4.2923 PO = 2114.0 P = 978.29

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4021		-.4146	-.4366	-.4635	-.5844	-.3149	
45.000				-.4588				
90.000			-.4359	-.4549	-.4648	-.4728	-.6758	
135.000				-.4349	-.4626	-.5525		.4549
180.000			-.4066	-.4027	-.4251	-.5527	-.7885	
225.000						-.5557		.3539
270.000	-.4068	-.4231	-.4417				-.6369	
315.000			-.4701	-.5051	-.6454			-.1287

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H31) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.970 BETA (1) = -.003 MACH = 1.2502 RN/L = 4.3628 PO = 2115.4 P = 815.45

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.278		-3.487	-4.118	-4.785	-4.917	-1.1479	
45.000				-4.028				
90.000			-3.908	-4.082	-4.092	-4.203	-4.924	
135.000				-3.531	-3.805	-4.610		.4462
180.000			-3.325	-3.395	-3.389	-3.866	-5.770	
225.000						-4.584		.3433
270.000	-3.441	-3.518	-3.327			-4.875		
315.000			-3.342	-4.144	-5.202			-0.0269

ALPHA (2) = -.330 BETA (1) = -4.005 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.395		-3.364	-4.066	-4.432	-5.344	-1.1842	
45.000				-4.506				
90.000			-3.371	-4.029	-4.044	-4.120	-4.822	
135.000				-3.330	-4.088	-4.553		.6469
180.000			-3.335	-3.322	-3.555	-4.362	-5.254	
225.000						-3.324		.2797
270.000	-3.401	-3.473	-4.234			-5.067		
315.000			-4.504	-4.603	-5.298			-0.0128

ALPHA (2) = -.317 BETA (2) = .003 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.387		-3.328	-3.782	-4.354	-4.906	-1.1489	
45.000				-4.402				
90.000			-3.3623	-3.370	-3.3699	-3.3899	-4.819	
135.000				-3.336	-3.3643	-4.331		.4996
180.000			-3.3090	-3.3076	-2.251	-3.3650	-5.503	
225.000						-4.518		.3937

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H31)

ALPHA (2) = -.317 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3215	-.3230	-.3753			-.5140	
315.000			-.3930	-.4214	-.5242		-.0084

ALPHA (2) = -.370 BETA (3) = 4.012 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3440		-.3619	-.3900	-.4285	-.5272	-.1852
45.000			-.4579				
90.000			-.3538	-.3511	-.3511	-.3770	-.5092
135.000				-.3570	-.3795	-.4374	.1996
180.000			-.3367	-.3430	-.3555	-.4320	-.6459
225.000						-.4164	.4912
270.000	-.3575	-.3546	-.4048			-.4696	
315.000			-.4728	-.4888	-.5573		-.0104

ALPHA (3) = 3.950 BETA (1) = -.003 MACH = 1.2493 RN/L = 4.3596 PO = 2115.9 P = 818.02

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3291		-.3270	-.3682	-.3941	-.4913	-.1797
45.000				-.4308			
90.000			-.3422	-.3517	-.3565	-.3705	-.4856
135.000				-.3354	-.3654	-.4089	.4772
180.000			-.3523	-.3407	-.3555	-.4183	-.6116
225.000						-.4055	.3861
270.000	-.3284	-.3269	-.3733			-.4544	
315.000			-.4663	-.5153	-.5600		-.0163

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H32) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -4.043 BETA (1) = .000 MACH = 1.4047 RN/L = 4.2434 PO = 2120.4 P = 661.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -1.3073 -1.3039 -1.3243 -1.3423 -1.3867 -1.1881
 45.000 -1.3428
 90.000 -1.3200 -1.3193 -1.3157 -1.3173 -1.3768
 135.000 -1.3539 -1.3772 -1.4182 .4605
 180.000 -1.3346 -1.3300 -1.3182 -1.4276 -1.4336
 225.000 -1.3987 .3416
 270.000 -1.3110 -1.3174 -1.3224 -1.3779
 315.000 -1.3255 -1.3634 -1.4195 -1.0710

ALPHA (2) = -1.195 BETA (1) = -4.012 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -1.2990 -1.2974 -1.3199 -1.3437 -1.4066 -1.1657
 45.000 -1.3372
 90.000 -1.3589 -1.3532 -1.3489 -1.3446 -1.3482
 135.000 -1.4003 -1.3942 -1.2668 .5502
 180.000 -1.2964 -1.2937 -1.3113 -1.3502 -1.3707
 225.000 -1.3543 .2696
 270.000 -1.2736 -1.2976 -1.3065 -1.3583
 315.000 -1.3261 -1.3428 -1.4186 -1.0447

ALPHA (2) = -1.211 BETA (2) = .000 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -1.2746 -1.2720 -1.2947 -1.3217 -1.3862 -1.1765
 45.000 -1.2956
 90.000 -1.3144 -1.3279 -1.3113 -1.3098 -1.3869
 135.000 -1.3301 -1.3370 -1.3722 .5404
 180.000 -1.2753 -1.2693 -1.2463 -1.5008 -1.4278
 225.000 -1.3416 .3318

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ARC11-0231A80 OTS(SRB=OFF CRB=OFF)

ET BASE

(RE4H32)

ALPHA (2) = -.211 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2780	-.2854	-.3206			-.3998	
315.000				-.2980	-.3269	-.3940		-.0457

ALPHA (2) = .083 BETA (3) = 4.006 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2927		-.2935	-.3203	-.3448	-.4139	-.1625	
45.000				-.3393				
90.000			-.2986	-.2979	-.2940	-.3030	-.3534	
135.000				-.2990	-.3148	-.3545		.2220
180.000			-.2824	-.2937	-.3165	-.3532	-.5089	
225.000						-.2778		.4404
270.000		-.3113	-.3055	-.3431			-.3740	
315.000				-.3163	-.3925	-.4212		-.0490

ALPHA (3) = 4.082 BETA (1) = .000 MACH = 1.3983 RN/L = 4.2463 PO = 2120.4 P = 667.87

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2669		-.2656	-.3097	-.3462	-.3954	-.0737	
45.000				-.3560				
90.000			-.2624	-.3225	-.3401	-.3809	-.4015	
135.000				-.3522	-.3407	-.3511		.5226
180.000			-.2738	-.2659	-.2426	-.3085	-.4319	
225.000						-.3311		.3991
270.000		-.2630	-.2616	-.2964			-.4055	
315.000				-.3245	-.4249	-.3982		.0370

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF)

ET BASE

(RE4H33) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-12 = .000 ELV-09 = .000
 RN/L = 1.750 MACH = .600

ALPHA (1) = -3.953 BETA (1) = -.003 MACH = .59560 RN/L = 1.7428 PO = 1060.9 P = 834.63

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3280		-.2377	-.2812	-.3952	-.7242	-.8221	
45.000			-.3334					
90.000			-.3409	-.3870	-.4337	-.5300	-.7165	
135.000				-.3416	-.3925	-.5965		.2187
180.000			-.3183	-.3327	-.3416	-.4154	-.6188	
225.000						-.7105		.1522
270.000	-.3170	-.3190	-.3358				-.6414	
315.000			-.3203	-.3313	-.4854			-.5416

ALPHA (2) = -.271 BETA (1) = -.4044 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3475		-.2543	-.2750	-.3903	-.7185	-.8669	
45.000			-.3528					
90.000			-.3361	-.4420	-.4878	-.5424	-.7480	
135.000				-.3636	-.3983	-.6471		.3193
180.000			-.3403	-.3567	-.4018	-.4544	-.6858	
225.000						-.6769		.0795
270.000	-.3344	-.3132	-.3401				-.6002	
315.000			-.3269	-.3421	-.4942			-.5871

ALPHA (2) = -.284 BETA (2) = -.031 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3029		-.2169	-.2545	-.3497	-.7028	-.8367	
45.000			-.3164					
90.000			-.3216	-.3708	-.4027	-.5001	-.6584	
135.000				-.3246	-.3742	-.5893		.2624
180.000			-.3080	-.3171	-.3218	-.4040	-.6093	
225.000						-.6945		.1999

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ARC11-0231A80 OTS(SRG=OFF ORB=OFF)

ET BASE

(RE4H33)

ALPHA (2) = -.284 BETA (2) = -.031

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2928	-.2940	-.3178			-.5887	
315.000				-.2926	-.2933	-.4271		-.5262

ALPHA (2) = -.343 BETA (3) = 3.964 MACH = .59443 RN/L = 1.7407 PO = 1050.2 P = 834.82

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3321		-.2686	-.2719	-.3572	-.7004	-.8896	
45.000				-.3190				
90.000			-.3239	-.3572	-.4272	-.4922	-.6895	
135.000				-.3281	-.3627	-.4922		.0676
180.000			-.3052	-.3371	-.3523	-.4354	-.6930	
225.000						-.7337		.2233
270.000	-.3314	-.3163	-.3579				-.6750	
315.000			-.3350	-.3447	-.4520			-.5787

ALPHA (3) = 3.963 BETA (1) = -.003 MACH = .59300 RN/L = 1.7403 PO = 1060.2 P = 835.76

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3316		-.2365	-.2535	-.3656	-.7213	-.8620	
45.000				-.3421				
90.000			-.3158	-.3950	-.4466	-.5062	-.6526	
135.000				-.3372	-.4057	-.6106		.2819
180.000			-.3019	-.3324	-.3463	-.4150	-.6299	
225.000						-.7240		.2383
270.000	-.3150	-.3012	-.3151				-.5809	
315.000			-.3192	-.3303	-.4385			-.5187

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H34) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 2.250 MACH = .900

ALPHA (1) = -3.947 BETA (1) = .000 MACH = .90000 RN/L = 2.1578 PO = 1061.6 P = 627.70

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3375 -.3373 -.3727 -.3820 -.4095 -.7106
45.000 -.4089
90.000 -.3444 -.3984 -.4446 -.5137 -.6871
135.000 -.3535 -.4073 -.5625 .2511
180.000 -.3204 -.3475 -.3487 -.4311 -.5909
225.000 -.6771 .2486
270.000 -.3407 -.3500 -.3603 -.5785
315.000 -.3972 -.4730 -.6094 -.4379

ALPHA (2) = -.264 BETA (1) = -4.044 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3535 -.3459 -.3727 -.3857 -.4057 -.6945
45.000 -.3840
90.000 -.3549 -.3958 -.4773 -.5225 -.7292
135.000 -.3486 -.3933 -.6381 .4745
180.000 -.3428 -.3539 -.3982 -.4861 -.6777
225.000 -.6513 .1452
270.000 -.3527 -.3462 -.3599 -.5833
315.000 -.4271 -.5002 -.5992 -.4175

ALPHA (2) = -.271 BETA (2) = -.031 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3312 -.3288 -.3527 -.3729 -.4177 -.6777
45.000 -.3977
90.000 -.3408 -.4147 -.4492 -.4994 -.6559
135.000 -.3663 -.4437 -.5037 .3579
180.000 -.3126 -.3380 -.3395 -.4355 -.5986
225.000 -.6462 .3216

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A60 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H34)

ALPHA (2) = -.271 BETA (2) = -.031

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
270.000		-.3324	-.3368	-.3472			-.5472	
315.000				-.3786	-.4043	-.6058		-.4085

ALPHA (2) = -.304 BETA (3) = 3.984 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.29

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
.000		-.3322		-.3611	-.3757	-.3881	-.4045	-.6995
45.000					-.4296			
90.000				-.3382	-.4123	-.4429	-.5051	-.6855
135.000					-.3427	-.3656	-.4822	.0811
180.000				-.3077	-.3386	-.3399	-.4439	-.6347
225.000						-.7054		.3369
270.000		-.3411	-.3427	-.3503			-.5233	
315.000				-.3604	-.3641	-.5771		-.4287

ALPHA (3) = 3.990 BETA (1) = -.003 MACH = .90350 RN/L = 2.1629 PO = 1061.6 P = 625.33

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
.000		-.3263		-.3271	-.3583	-.3682	-.4062	-.6789
45.000					-.3583			
90.000				-.3343	-.3630	-.4142	-.5146	-.6868
135.000					-.3746	-.4581	-.6059	.4150
180.000				-.3059	-.3335	-.3395	-.4377	-.6002
225.000						-.6179		.3651
270.000		-.3335	-.3367	-.3383			-.5016	
315.000				-.3455	-.3618	-.5341		-.4098

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H35) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 2.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .000 MACH = 1.0935 RN/L = 2.2424 PO = 1058.8 P = 499.91

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-4.172		-4.297	-4.482	-4.693	-5.196	-3.264	
45.000			-4.587					
90.000			-4.741	-4.826	-4.789	-4.77	-4.724	
135.000				-4.540	-4.751	-5.574		.2927
180.000			-4.304	-4.373	-4.683	-5.574	-7.598	
225.000						-5.580		.2859
270.000		-4.507	-4.618	-4.577			-4.592	
315.000				-5.150	-5.454	-5.581		-.0805

ALPHA (2) = -.225 BETA (1) = -4.009 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-4.355		-4.581	-4.596	-4.671	-5.125	-3.403	
45.000			-5.119					
90.000			-4.705	-4.905	-5.031	-5.091	-6.656	
135.000				-4.898	-5.217	-6.543		.5958
180.000			-4.450	-4.501	-4.745	-5.639	-7.106	
225.000						-5.285		.2365
270.000		-4.504	-4.616	-4.827			-4.628	
315.000				-4.939	-5.143	-5.598		-.0853

ALPHA (2) = -.225 BETA (2) = .000 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.795		-4.145	-4.134	-4.235	-4.935	-3.279	
45.000			-4.300					
90.000			-4.391	-4.649	-4.791	-5.571	-5.805	
135.000				-4.228	-4.530	-5.449		.3585
180.000			-3.934	-4.025	-4.296	-5.194	-7.304	
225.000						-5.652		.3621

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H35)

ALPHA (2) = -.225 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.4323	-.4317	-.4618			-.5405	
315.000				-.4171	-.4262	-.4747		-.0687

ALPHA (2) = -.231 BETA (3) = 4.012 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4498		-.4596	-.4627	-.4698	-.5138	-.3407	
45.000				-.4701				
90.000			-.4606	-.4715	-.4725	-.4747	-.4687	
135.000				-.4729	-.4939	-.5457		.2014
180.000			-.4490	-.4514	-.4627	-.5906	-.8484	
225.000						-.5719		.4636
270.000	-.4572	-.4596		-.4701			-.6896	
315.000				-.5524	-.5629	-.6021		-.1319

ALPHA (3) = 4.016 BETA (1) = -.003 MACH = 1.1017 RN/L = 2.2510 PO = 1060.9 P = 495.81

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4286		-.4404	-.4457	-.4575	-.5049	-.3307	
45.000				-.4952				
90.000			-.4592	-.4690	-.4798	-.4819	-.6825	
135.000				-.4565	-.4812	-.5712		.4381
180.000			-.4281	-.4325	-.4622	-.5592	-.7838	
225.000						-.5830		.3427
270.000	-.4340	-.4426		-.4622			-.6825	
315.000				-.5055	-.5245	-.5996		-.1452

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H35) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 2.250 MACH = 1.250

ALPHA (1) = -3.993 BETA (1) = .003 MACH = 1.2488 RN/L = 2.2675 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.367		-3.595	-3.3939	-4.305	-4.720	-1.1584	
45.000				-3.3926				
90.000			-3.3894	-4.4143	-4.130	-4.112	-4.937	
135.000				-3.3591	-3.3900	-4.558		.4126
180.000			-3.3317	-3.3400	-3.3470	-4.019	-5.688	
225.000						-4.427		.3199
270.000	-3.3544	-3.3591	-4.4028				-5.108	
315.000			-3.3986	-4.4111	-4.615			-0.0370

ALPHA (2) = -.145 BETA (1) = -4.003 MACH = 1.2488 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.506		-3.3712	-3.3916	-4.4119	-4.341	-1.1921	
45.000				-4.4658				
90.000			-3.3833	-4.4078	-4.4034	-3.3962	-4.4896	
135.000				-3.3855	-3.3935	-4.344		.5863
180.000			-3.3486	-3.3426	-3.3639	-4.303	-5.048	
225.000						-3.3905		.2563
270.000	-3.3513	-3.3543	-4.4135				-5.165	
315.000			-4.4422	-4.4441	-4.4640			-0.0252

ALPHA (2) = -.129 BETA (2) = .003 MACH = 1.2488 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.120		-3.3294	-3.3556	-3.3858	-4.4186	-1.1697	
45.000				-4.4037				
90.000			-3.3769	-3.3951	-3.3954	-4.4011	-5.037	
135.000				-3.3486	-3.3947	-4.593		.5034
180.000			-3.3047	-3.3117	-2.2980	-3.3671	-5.357	
225.000						-4.326		.3385

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H36)

ALPHA (2) = -.129 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3304	-.3308	-.3842		-.5322	
315.000			-.3738	-.3884	-.4450	-.0225

ALPHA (2) = -.175 BETA (3) = 4.009 MACH = 1.2489 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3455		-.3655	-.3763	-.3923	-.4233	-.1957
45.000				-.4414			
90.000			-.3629	-.3626	-.3623	-.3799	-.4894
135.000				-.3542	-.3878	-.4456	.1950
180.000			-.3416	-.3467	-.3604	-.4402	-.5930
225.000						-.4223	.4609
270.000	-.3617	-.3604	-.4101			-.4998	
315.000			-.4707	-.4924	-.5202		-.0289

ALPHA (3) = 4.072 BETA (1) = .003 MACH = 1.2496 RN/L = 2.2672 PO = 1060.9 P = 409.77

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3330		-.3330	-.3594	-.3728	-.4070	-.1823
45.000				-.4451			
90.000			-.3473	-.3578	-.3610	-.3713	-.4837
135.000				-.3454	-.3693	-.4114	.4576
180.000			-.3575	-.3476	-.3559	-.4270	-.5676
225.000						-.4124	.3798
270.000	-.3320	-.3333	-.3788			-.4859	
315.000			-.4754	-.4996	-.5405		-.0242

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H37) (13 JAN 75)

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 2.250 MACH = 1.400

ALPHA (1) = -4.013 BETA (1) = .003 MACH = 1.3998 RN/L = 2.2349 PO = 1061.6 P = 333.70

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-0.3168		-0.3149	-0.3255	-0.3376	-0.3492	-0.2027	
45.000			-0.3501					
90.000			-0.3291	-0.3283	-0.3248	-0.3227	-0.3955	
135.000				-0.3504	-0.3550	-0.4070		.4353
180.000			-0.3260	-0.3239	-0.3080	-0.3995	-0.4334	
225.000						-0.4120		.3186
270.000		-0.3230	-0.3291	-0.3326			-0.4002	
315.000				-0.3435	-0.3735	-0.3983		-0.0857

ALPHA (2) = -.241 BETA (1) = -4.006 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-0.3081		-0.3087	-0.3230	-0.3374	-0.3567	-0.1761	
45.000			-0.3533					
90.000			-0.3546	-0.3549	-0.3527	-0.3495	-0.3631	
135.000				-0.4152	-0.4251	-0.2796		.5329
180.000			-0.3018	-0.3018	-0.3287	-0.3542	-0.3743	
225.000						-0.3548		.2453
270.000		-0.2913	-0.3118	-0.3212			-0.3854	
315.000				-0.3427	-0.3655	-0.3976		-0.0610

ALPHA (2) = -.264 BETA (2) = .000 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-0.2847		-0.2916	-0.3099	-0.3282	-0.3431	-0.1869	
45.000			-0.3240					
90.000			-0.3340	-0.3424	-0.3347	-0.3253	-0.3384	
135.000				-0.3237	-0.3472	-0.3719		.5150
180.000			-0.2799	-0.2750	-0.2534	-0.3200	-0.4175	
225.000						-0.3450		.3602

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H37)

ALPHA (2) = -.264 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2922	-.2983	-.3303			-.4214	
315.000			-.3194	-.3397	-.3682		-.0603

ALPHA (2) = -.267 BETA (3) = 4.009 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3021		-.3042	-.3170	-.3292	-.3493	-.1733
45.000				-.3545			
90.000			-.3098	-.3060	-.3051	-.3065	-.3546
135.000				-.3092	-.3307	-.3694	.1912
180.000			-.2954	-.3017	-.3273	-.3719	-.4818
225.000						-.2980	.4266
270.000	-.3213	-.3198	-.3551			-.3932	
315.000			-.3467	-.3764	-.3866		-.0595

ALPHA (3) = 4.010 BETA (1) = .003 MACH = 1.3956 RN/L = 2.2367 PO = 1060.2 P = 335.22

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2725	-.2765	-.3052	-.3242	-.3534	-.0848	
45.000			-.3630				
90.000		-.2755	-.3411	-.3530	-.3819	-.4098	
135.000			-.3539	-.3622	-.3638		.5136
180.000		-.2814	-.2708	-.2486	-.3275	-.4222	
225.000					-.3413		.3857
270.000	-.2756	-.2768	-.3092			-.4207	
315.000			-.3708	-.4161	-.4063		.0285

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(REWH38) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 1.750 MACH = .600

ALPHA (1) = -3.990 BETA (1) = -.003 MACH = .59910 RN/L = 1.7583 PO = 1060.9 P = 832.35

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3736 -.2746 -.3110 -.4505 -.7708 -.8780
45.000 -.3642
90.000 -.3665 -.4180 -.4723 -.5743 -.7689
135.000 -.3803 -.4348 -.6315 .2012
180.000 -.3464 -.3632 -.3714 -.4348 -.6692
225.000 -.7566 .1359
270.000 -.3479 -.3533 -.3741 -.5875
315.000 -.3598 -.3850 -.5222 -.5834

ALPHA (2) = -.314 BETA (1) = -4.044 MACH = .59907 RN/L = 1.7666 PO = 1066.1 P = 936.42

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3422 -.2532 -.2916 -.3578 -.7488 -.8941
45.000 -.3716
90.000 -.3540 -.4495 -.4888 -.5580 -.7444
135.000 -.3634 -.3906 -.6055 .3228
180.000 -.3587 -.3641 -.3858 -.4448 -.7039
225.000 -.6946 .0784
270.000 -.3267 -.3309 -.3431 -.6135
315.000 -.3268 -.3356 -.4997 -.5955

ALPHA (2) = -.317 BETA (2) = -.009 MACH = .59907 RN/L = 1.7683 PO = 1066.1 P = 836.42

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3511 -.2582 -.2890 -.3379 -.7481 -.8644
45.000 -.3528
90.000 -.3528 -.4019 -.4456 -.5482 -.7140
135.000 -.3649 -.4308 -.6207 .2461
180.000 -.3381 -.3510 -.3589 -.4308 -.6545
225.000 -.7461 .1783

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H38)

ALPHA (2) = -.317 BETA (2) = -.009

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3337	-.3240	-.3596			-.6499	
315.000				-.3527	-.3374	-.4644		-.5724

ALPHA (2) = -.327 BETA (3) = 3.981 MACH = .59907 RN/L = 1.7686 PO = 1066.1 P = 835.42

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3425	-.2771	-.2852	-.3700	-.7377	-.8995	
45.000				-.3414				
90.000			-.3501	-.3764	-.4392	-.5130	-.7107	
135.000				-.3407	-.3755	-.5157		.0594
180.000			-.3209	-.3524	-.3549	-.4342	-.6841	
225.000						-.7601		.2156
270.000		-.3405	-.3360	-.3566			-.6848	
315.000				-.3515	-.3494	-.468		-.5835

ALPHA (3) = 3.950 BETA (1) = -.003 MACH = .60350 RN/L = 1.7801 PO = 1066.6 P = 833.90

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3431	-.2352	-.2738	-.3683	-.7665	-.8771	
45.000				-.3642				
90.000			-.3508	-.4117	-.4545	-.5264	-.6793	
135.000				-.3515	-.4217	-.6234		.2854
180.000			-.3260	-.3414	-.3428	-.4261	-.6440	
225.000						-.7572		.2393
270.000		-.3184	-.3180	-.3180			-.5908	
315.000				-.3341	-.3294	-.4683		-.5365

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4139) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 SREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 2.250 MACH = .900

ALPHA (1) = -3.986 BETA (1) = .003 MACH = .89730 RN/L = 2.1589 PO = 1063.0 P = 630.39

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.774		-3.794	-4.168	-4.267	-4.493	-7.198	
45.000				-4.581				
90.000			-3.922	-4.328	-4.850	-5.576	-7.7434	
135.000				-3.620	-4.524	-5.857		.2453
180.000			-3.3525	-3.714	-3.660	-4.505	-6.6243	
225.000						-7.105		.2462
270.000		-3.798	-3.774	-3.931			-6.6227	
315.000				-4.417	-5.252	-6.636		-4.461

ALPHA (2) = -.294 BETA (1) = -4.044 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.912		-3.936	-4.185	-4.269	-4.497	-6.975	
45.000				-4.185				
90.000			-3.991	-4.213	-5.014	-5.718	-6.6014	
135.000				-3.771	-4.225	-6.699		.4718
180.000			-3.678	-3.976	-4.157	-5.365	-6.8746	
225.000						-6.6899		.1352
270.000		-3.920	-3.975	-4.084			-6.6387	
315.000				-4.951	-5.798	-6.626		-4.212

ALPHA (2) = -.310 BETA (2) = -.028 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.738		-3.714	-4.208	-4.165	-4.738	-6.637	
45.000				-4.524				
90.000			-3.977	-4.197	-4.772	-5.742	-7.7512	
135.000				-4.165	-4.911	-6.6293		.3543
180.000			-3.974	-3.814	-3.952	-4.734	-6.6374	
225.000						-6.651		.3161

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(REWH39)

ALPHA (2) = -.310 BETA (2) = -.028

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3761	-.3905	-.3905			-.6029
315.000				-.4279	-.4792	-.6918	-.3998

ALPHA (2) = -.326 BETA (3) = 3.981 MACH = .90407 RN/L = .1638 PO = 1061.8 P = 625.06

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3754		-.3917	-.4115	-.4167	-.4395	-.5862
45.000				-.4705			
90.000			-.3815	-.4115	-.4043	-.5447	-.7668
135.000				-.3879	-.4087	-.5714	.0702
180.000			-.3991	-.3939	-.3875	-.4993	-.7298
225.000						-.7452	.3317
270.000		-.3869	-.3832	-.3927			-.5425
315.000				-.3983	-.4306	-.6938	-.4268

ALPHA (3) = 3.970 BETA (1) = .000 MACH = .90120 RN/L = 2.1596 PO = 1060.2 P = 626.02

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3622		-.3546	-.4036	-.4099	-.4550	-.6814
45.000				-.4012			
90.000			-.3735	-.3974	-.4371	-.5742	-.7600
135.000				-.4107	-.4956	-.6450	.4090
180.000			-.3427	-.3674	-.3469	-.4550	-.6280
225.000						-.6622	.3574
270.000		-.3634	-.3792	-.3754			-.5383
315.000				-.3810	-.3894	-.6234	-.4189

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TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=N ORB=N)

ET BASE

(REHH40) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DAT.

ELV-18 = .000 ELV-08 = .000
 RN/L = 2.250 MACH = 1.100

ALPHA (1) = -3.801 BETA (1) = -.006 MACH = 1.0940 RN/L = 2.2469 PO = 1059.5 P = 499.92

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
 R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4123 -.4215 -.4299 -.4544 -.5116 -.3240
 45.000 -.4506
 90.000 -.4527 -.4530 -.4516 -.4547 -.4588
 135.000 -.4527 -.4580 -.5685 .2895
 180.000 -.4288 -.4237 -.5010 -.5709 -.7275
 225.000 -.6032 .2858
 270.000 -.4357 -.4458 -.4428 -.4563
 315.000 -.5013 -.5231 -.5842 -.0790

ALPHA (2) = -.304 BETA (1) = -4.003 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
 R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4184 -.4396 -.4398 -.4483 -.4939 -.3392
 45.000 -.4927
 90.000 -.4436 -.4534 -.4700 -.4881 -.6776
 135.000 -.4612 -.4890 -.6261 .5898
 180.000 -.4253 -.4253 -.4409 -.5170 -.7065
 225.000 -.5193 .2301
 270.000 -.4299 -.4378 -.4629 -.4571
 315.000 -.4791 -.5005 -.5509 -.0814

ALPHA (2) = -.257 BETA (2) = .003 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
 R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3694 -.3937 -.3976 -.4077 -.4746 -.3260
 45.000 -.4027
 90.000 -.4159 -.4531 -.4683 -.5403 -.5680
 135.000 -.4267 -.4467 -.5582 .3744
 180.000 -.3929 -.3953 -.4771 -.5418 -.7019
 225.000 -.5630 .3639

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TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H40)

ALPHA (2) = -.267 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.4041	-.4142	-.4446				-.5380
315.000				-.4033	-.4047	-.4657		-.0280

PHI								
270.000		-.4041	-.4142	-.4446				-.5380
315.000				-.4033	-.4047	-.4657		-.0280

ALPHA (2) = -.390 BETA (3) = 4.016 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4273		-.4368	-.4381	-.4448	-.4916	-.3384	
45.000				-.4489				
90.000			-.4384	-.4505	-.4547	-.4555	-.4620	
135.000				-.4489	-.4727	-.5248		.1924
180.000			-.4258	-.4347	-.5053	-.6831	-.7801	
225.000						-.5517		.4490
270.000		-.4334	-.4340	-.4428			-.6650	
315.000				-.5199	-.5375	-.5853		-.1288

ALPHA (3) = 3.983 BETA (1) = .003 MACH = 1.1029 RN/L = 2.2596 PO = 1063.7 P = 496.39

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4130		-.4194	-.4321	-.4399	-.4931	-.3281	
45.000				-.4739				
90.000			-.4251	-.4345	-.4362	-.4449	-.6770	
135.000				-.4281	-.4642	-.5727		.4417
180.000			-.4412	-.4227	-.4844	-.5693	-.7497	
225.000						-.5636		.3409
270.000		-.4170	-.4193	-.4571			-.6231	
315.000				-.4979	-.5312	-.6009		-.1427

PHI								
.000	-.4130		-.4194	-.4321	-.4399	-.4931	-.3281	
45.000				-.4739				
90.000			-.4251	-.4345	-.4362	-.4449	-.6770	
135.000				-.4281	-.4642	-.5727		.4417
180.000			-.4412	-.4227	-.4844	-.5693	-.7497	
225.000						-.5636		.3409
270.000		-.4170	-.4193	-.4571			-.6231	
315.000				-.4979	-.5312	-.6009		-.1427

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OF POOR QUALITY

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

LI BASE

(RE4H41) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 2.500 MACH = .600

ALPHA (1) = -4.000 BETA (1) = -.022 MACH = .60170 RN/L = 2.5509 PO = 1557.4 P = 1219.4

SECTION (1)	EXTERNAL TANK BASE	DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3397		-.2573	-.2729	-.3595	-.6943	-.8314	
45.000				-.3369				
90.000			-.3374	-.3867	-.4190	-.5439	-.7442	
135.000				-.3462	-.3987	-.6009		.2245
180.000			-.3120	-.3383	-.3558	-.4233	-.6459	
225.000						-.7086		.1569
270.000	-.3249	-.3199	-.3351			-.6422		
315.000			-.3268	-.3377	-.4771			-.5522

ALPHA (2) = -.261 BETA (1) = -4.041 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1)	EXTERNAL TANK BASE	DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3299		-.2483	-.2733	-.3119	-.6679	-.8657	
45.000				-.3431				
90.000			-.3249	-.4227	-.4674	-.5377	-.7359	
135.000				-.3529	-.3808	-.6391		.3315
180.000			-.3291	-.3510	-.3945	-.4531	-.6770	
225.000						-.6707		.0944
270.000	-.3118	-.3063	-.3198			-.5750		
315.000			-.3133	-.3231	-.4675			-.5744

ALPHA (2) = -.271 BETA (2) = -.025 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1)	EXTERNAL TANK BASE	DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3075		-.2410	-.2595	-.3173	-.6665	-.8260	
45.000				-.3240				
90.000			-.3254	-.3693	-.4076	-.5276	-.6835	
135.000				-.3405	-.3842	-.5975		.2612
180.000			-.3075	-.3295	-.3394	-.4207	-.6403	
225.000						-.7030		.1965

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H41)

ALPHA (2) = -.271 BETA (2) = -.025

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3030	-.2993	-.3207			-.6230	
315.000			-.3028	-.3037	-.4100		-.5420

ALPHA (2) = -.343 BETA (3) = 3.991 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3137		-.2463	-.2660	-.2952	-.6448	-.8628
45.000				-.3154			
90.000			-.3232	-.3507	-.3912	-.4980	-.6890
135.000				-.3164	-.3414	-.4829	.0782
180.000			-.2967	-.3292	-.3308	-.4372	-.6718
225.000						-.7258	.2405
270.000	-.3082	-.3026	-.3350			-.6640	
315.000			-.3199	-.3171	-.4311		-.5540

ALPHA (3) = 3.944 BETA (1) = -.022 MACH = .60230 RN/L = 2.5548 PO = 1556.7 P = 1218.3

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3115		-.2345	-.2477	-.3080	-.6679	-.8363
45.000				-.3214			
90.000			-.3134	-.3804	-.4200	-.4940	-.6424
135.000				-.3329	-.3836	-.6062	.2929
180.000			-.2947	-.3251	-.3343	-.4167	-.6319
225.000						-.7087	.2552
270.000	-.2918	-.2928	-.2928			-.5829	
315.000			-.3053	-.3062	-.4204		-.5027

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TABULATED SOURCE DATA - 1A80

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AR11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4442) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 3.250 MACH = .900

ALPHA (1) = -3.930 BETA (1) = .003 MACH = .90330 RN/L = 3.1425 PO = 1558.1 P = 918.01

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.427		-3.564	-3.3828	-3.3942	-4.184	-7.031	
45.000				-4.111				
90.000			-3.513	-4.089	-4.364	-5.235	-7.406	
135.000				-3.622	-4.198	-5.537		.2520
180.000			-3.3247	-3.565	-3.576	-4.469	-6.144	
225.000						-6.642		.2562
270.000	-3.517	-3.456	-3.627				-6.6028	
315.000			-4.040	-4.735	-6.245			-4.320

ALPHA (2) = -.284 BETA (1) = -4.041 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.571		-3.539	-3.3757	-3.3826	-4.100	-6.804	
45.000				-3.3862				
90.000			-3.548	-3.3982	-4.709	-5.202	-7.736	
135.000				-3.537	-3.3946	-6.573		.4759
180.000			-3.371	-3.583	-4.033	-4.868	-6.897	
225.000						-6.444		.1550
270.000	-3.559	-3.493	-3.648				-5.946	
315.000			-4.305	-4.994	-6.097			-4.030

ALPHA (2) = -.281 BETA (2) = -.028 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.290		-3.3258	-3.3583	-3.3689	-4.160	-6.857	
45.000				-3.3768				
90.000			-3.360	-4.094	-4.497	-5.015	-6.887	
135.000				-3.689	-4.426	-5.947		.3667
180.000			-3.321	-3.406	-3.447	-4.431	-6.110	
225.000						-6.518		.3300

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TABULATED SOURCE DATA - 1A80

PAGE 1076

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H42)

ALPHA (2) = -.281 BETA (2) = -.028

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3363	-.3368	-.3501			-.5619	
315.000			-.3565	-.3923	-.5809		-.4146

ALPHA (2) = -.248 BETA (3) = 3.994 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3375	-.3435	-.3691	-.3803	-.4099	-.6887	
45.000			-.4147				
90.000		-.3336	-.3593	-.3721	-.5263	-.7474	
135.000			-.3584	-.3764	-.5061		.0826
180.000		-.3157	-.3612	-.3647	-.4614	-.7050	
225.000					-.7190		.3432
270.000	-.3405	-.3339	-.3399			-.5006	
315.000			-.3511	-.3732	-.5350		-.4170

ALPHA (3) = 3.960 BETA (1) = .000 MACH = .89670 RN/L = 3.1185 PO = 1557.4 P = 924.11

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3275	-.3235	-.3550	-.3670	-.4063	-.6889	
45.000			-.3599				
90.000		-.3285	-.3689	-.4160	-.5063	-.7079	
135.000			-.3785	-.4603	-.6158		.4194
180.000		-.3068	-.3279	-.3398	-.4399	-.6066	
225.000					-.6290		.3729
270.000	-.3346	-.3342	-.3367			-.4743	
315.000			-.3460	-.3613	-.4951		-.4158

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H43) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 3.250 MACH = 1.100

ALPHA (1) = -4.016 BETA (1) = .003 MACH = 1.0981 RN/L = 3.2788 PO = 1555.3 P = 730.16

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-3.991		-4.173	-4.501	-4.815	-5.597	-3.053	
45.000				-4.529				
90.000			-4.527	-4.769	-4.732	-4.661	-4.559	
135.000				-4.330	-4.561	-5.602		.3124
180.000			-4.062	-4.138	-4.353	-5.248	-7.7471	
225.000						-5.736		.2962
270.000	-4.343	-4.467	-4.508				-4.442	
315.000			-5.074	-5.294	-6.035			-0.0697

ALPHA (2) = -.287 BETA (1) = -4.006 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-4.228		-4.502	-4.548	-4.648	-5.362	-3.335	
45.000				-4.998				
90.000			-4.597	-4.787	-4.889	-4.993	-6.654	
135.000				-4.785	-5.132	-6.551		.6086
180.000			-4.301	-4.317	-4.565	-5.566	-7.7195	
225.000						-5.206		.2434
270.000	-4.382	-4.511	-4.831				-4.565	
315.000			-4.916	-5.173	-5.872			-0.0755

ALPHA (2) = -.291 BETA (2) = .000 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-3.692		-4.063	-4.131	-4.299	-5.261	-3.199	
45.000				-4.288				
90.000			-4.315	-4.534	-4.666	-5.311	-5.895	
135.000				-4.085	-4.359	-5.413		.3867
180.000			-3.785	-3.882	-4.055	-4.970	-7.260	
225.000					-5.648			.3816

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H43)

ALPHA (2) = -.291 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000		-.4031	-.4188	-.4371			-.5448	
315.000				-.4126	-.4228	-.5018		-.0796

ALPHA (2) = -.310 BETA (3) = 4.006 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.4325		-.4479	-.4538	-.4633	-.5331	-.3304	
45.000				-.4640				
90.000			-.4462	-.4596	-.4610	-.4656	-.4564	
135.000				-.4605	-.4820	-.5355		.2261
180.000			-.4314	-.4367	-.4480	-.5746	-.8681	
225.000						-.5720		.4800
270.000	-.4399	-.4423	-.4557				-.6772	
315.000			-.5427	-.5619	-.6311			-.1235

ALPHA (3) = 4.016 BETA (1) = .003 MACH = 1.1070 RN/L = 3.2713 PO = 1554.6 P = 721.83

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.4121		-.4256	-.4391	-.4538	-.5351	-.3219	
45.000				-.4734				
90.000			-.4442	-.4614	-.4720	-.4801	-.6820	
135.000				-.4439	-.4688	-.5598		.4471
180.000			-.4172	-.4161	-.4396	-.5497	-.7996	
225.000						-.5558		.3506
270.000	-.4178	-.4310	-.4518				-.6659	
315.000			-.4902	-.5141	-.6256			-.1350

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4444) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
 RN/L = 3.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .000 MACH = 1.2532 RN/L = 3.2918 PO = 1554.6 P = 597.59

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3314 - .3515 - .3944 - .4446 - .4865 - .1484
 45.000 - .3952
 90.000 - .3814 - .4073 - .4112 - .4138 - .4924
 135.000 - .3541 - .3859 - .4596 .4381
 180.000 - .3232 - .3302 - .3317 - .3894 - .5757
 225.000 - .4444 .3358
 270.000 - .3467 - .3521 - .3947 - .5002
 315.000 - .3886 - .4112 - .4655 - .0281

ALPHA (2) = -.287 BETA (1) = -4.003 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3585 - .3783 - .4051 - .4361 - .4778 - .1985
 45.000 - .4732
 90.000 - .3868 - .4123 - .4139 - .4047 - .4972
 135.000 - .3999 - .4198 - .4647 .6142
 180.000 - .3478 - .3500 - .3710 - .4462 - .5314
 225.000 - .4091 .2608
 270.000 - .3555 - .3588 - .4189 - .5295
 315.000 - .4555 - .4610 - .4953 - .0271

ALPHA (2) = -.277 BETA (2) = .003 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3067 - .3220 - .3523 - .4054 - .4645 - .1543
 45.000 - .4293
 90.000 - .3545 - .3865 - .3853 - .3865 - .4860
 135.000 - .3408 - .3762 - .4398 .4968
 180.000 - .3045 - .3074 - .2938 - .3607 - .5475
 225.000 - .4422 .3947

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H44)

ALPHA (2) = -.277 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3228	-.3244	-.3766			-.5207	
315.000			-.3893	-.4044	-.4825		-.0126

ALPHA (2) = -.376 BETA (3) = 4.012 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3417		-.3587	-.3783	-.4024	-.4564	-.1829
45.000				-.4609			
90.000			-.3527	-.3508	-.3512	-.3740	-.4990
135.000				-.3595	-.3794	-.4364	.2032
180.000			-.3317	-.3434	-.3543	-.4327	-.6220
225.000						-.4100	.4674
270.000			-.3561	-.3514	-.4039		-.4800
315.000				-.4695	-.4908	-.5363	-.0138

ALPHA (3) = 3.947 BETA (1) = -.003 MACH = 1.2488 RN/L = 3.2905 PO = 1553.9 P = 600.81

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3301		-.3314	-.3619	-.3802	-.4405	-.1826
45.000				-.4389			
90.000			-.3454	-.3541	-.3502	-.3705	-.4873
135.000				-.3426	-.3632	-.4129	.4645
180.000			-.3561	-.3502	-.3561	-.4257	-.5946
225.000						-.4129	.3719
270.000			-.3290	-.3289	-.3780		-.4730
315.000				-.4721	-.5101	-.5544	-.0196

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4445) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 3.250 MACH = 1.400

ALPHA (1) = -3.990 BETA (1) = -.003 MACH = 1.4024 RN/L = 3.2259 PO = 1554.6 P = 486.87

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3112	-.3135	-.3253	-.3383	-.3636	-.1952	
45.000			-.3498				
90.000		-.3244	-.3216	-.3201	-.3210	-.3984	
135.000			-.3530	-.3644	-.4161		.4533
180.000		-.3268	-.3276	-.3150	-.4139	-.4348	
225.000					-.4063		.3299
270.000	-.3178	-.3227	-.3310			-.3941	
315.000			-.3342	-.3751	-.4141		-.0789

ALPHA (2) = -.284 BETA (1) = -4.000 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3028	-.3028	-.3163	-.3331	-.3714	-.1658	
45.000			-.3416				
90.000		-.3580	-.3501	-.3484	-.3429	-.3500	
135.000			-.4047	-.4172	-.2675		.5506
180.000		-.2957	-.2992	-.3182	-.3553	-.3714	
225.000					-.3510		.2606
270.000	-.2810	-.3033	-.3101			-.3687	
315.000			-.3293	-.3474	-.4006		-.0486

ALPHA (2) = -.297 BETA (2) = .000 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2761	-.2805	-.3002	-.3180	-.3528	-.1788	
45.000			-.3119				
90.000		-.3208	-.3304	-.3222	-.3141	-.3891	
135.000			-.3242	-.3401	-.3641		.5284
180.000		-.2770	-.2670	-.2422	-.3173	-.4202	
225.000					-.3371		.3736

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ARC11-0231A80 OT5(SRB=OFF OPB=OFF)

ET BASE

(RE4445)

ALPHA (2) = -.297 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2830	-.2889	-.3257		-.4077	
315.000			-.3063	-.3316	-.3784	-.0492

ALPHA (2) = -.294 BETA (3) = 4.009 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2956		-.2999	-.3119	-.3249	-.3665	-.1659
45.000				-.3447			
90.000			-.3030	-.2993	-.2974	-.3027	-.3547
135.000				-.3045	-.3223	-.3601	.2052
180.000			-.2878	-.2953	-.3223	-.3633	-.5021
225.000						-.2925	.4330
270.000	-.3134	-.3079	-.3471			-.3825	
315.000			-.3296	-.3790	-.3986		-.0502

ALPHA (3) = 3.980 BETA (1) = .000 MACH = 1.4028 RN/L = 3.2136 PO = 1553.2 P = 486.18

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2653		-.2670	-.3016	-.3271	-.3768	-.0765
45.000				-.3435			
90.000			-.2666	-.3310	-.3414	-.3722	-.3534
135.000				-.3523	-.3429	-.3504	.5202
180.000			-.2758	-.2649	-.2442	-.3204	-.4197
225.000						-.3334	.3955
270.000	-.2651	-.2634	-.2977			-.4091	
315.000			.3222	-.4015	-.3828		.0170

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OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H46) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 2.500 MACH = .600

ALPHA (1) = -3.894 BETA (1) = -.022 MACH = .60060 RN/L = 2.5569 PO = 1558.8 P = 1221.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9990 1.0000

PHI
.000 - .3575 -.2753 -.3021 -.3817 -.7372 -.8546
45.000 -.3625
90.000 -.3641 -.4184 -.4440 -.5869 -.7546
135.000 -.3691 -.4169 -.6265 .2148
180.000 -.3438 -.3584 -.3610 -.4455 -.6632
225.000 -.7456 .1407
270.000 -.3391 -.3359 -.3533 -.6779
315.000 -.3505 -.3545 -.5069 -.5714

ALPHA (2) = -.350 BETA (1) = -4.041 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 - .3426 -.2654 -.2907 -.3382 -.6989 -.8983
45.000 -.3617
90.000 -.3557 -.4401 -.4853 -.5622 -.7597
135.000 -.3636 -.3940 -.6580 .3314
180.000 -.3460 -.3677 -.3915 -.4443 -.7139
225.000 -.6902 .0779
270.000 -.3301 -.3285 -.3460 -.6230
315.000 -.3278 -.3385 -.4933 -.5999

ALPHA (2) = -.320 BETA (2) = -.025 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9990 1.0000

PHI
.000 - .3452 -.2747 -.2885 -.3616 -.7184 -.8682
45.000 -.3516
90.000 -.3539 -.4068 -.4437 -.5555 -.7299
135.000 -.3690 -.4247 -.6287 .2466
180.000 -.3391 -.3555 -.3611 -.4362 -.6777
225.000 -.7379 .1773

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1084

ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H46)

ALPHA (2) = -.320 BETA (2) = -.025

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3314	-.3261	-.3533			-.6777	
315.000			-.3333	-.3407	-.4619		-.5775

ALPHA (2) = -.337 BETA (3) = 3.994 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3725		-.3135	-.2984	-.3501	-.6918	-.9141
45.000				-.3483			
90.000			-.3443	-.3847	-.4391	-.5511	-.7558
135.000				-.3600	-.3952	-.5231	.0486
180.000			-.3242	-.3551	-.3757	-.4544	-.7062
225.000						-.7660	.2173
270.000	-.3641	-.3350	-.3698			-.7229	
315.000			-.3525	-.3771	-.4686		-.6016

ALPHA (3) = 4.076 BETA (1) = -.028 MACH = .60170 RN/L = 2.5615 PO = 1555.3 P = 1217.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3259		-.2337	-.2699	-.3314	-.7214	-.8632
45.000				-.3409			
90.000			-.3384	-.3930	-.4370	-.5216	-.6652
135.000				-.3460	-.3973	-.6239	.2913
180.000			-.3177	-.3317	-.3782	-.4261	-.6409
225.000						-.7388	.2500
270.000	-.3013	-.3053	-.3139			-.6019	
315.000			-.3078	-.3103	-.4523		-.5226

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

PAGE 1085

ARC11-0231AB0 OTS(SRB=N ORB=N) ET BASE

(RE4H47) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 3.250 MACH = .900

ALPHA (1) = -4.033 BETA (1) = .000 MACH = .90410 RN/L = 3.1247 PO = 1556.7 P = 916.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3629	-.3667	-.4062	-.4130	-.4701	-.6976	
45.000			-.4429				
90.000		-.3880	-.4171	-.4624	-.5777	-.7804	
135.000			-.3880	-.4355	-.5891		.2572
180.000		-.3593	-.3710	-.3650	-.4524	-.6153	
225.000					-.7024		.2626
270.000	-.3735	-.3783	-.3875			-.6228	
315.000			-.4263	-.4852	-.6606		-.4289

ALPHA (2) = -.343 BETA (1) = -4.044 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3815	-.3843	-.4183	-.4237	-.4603	-.6864	
45.000			-.4254				
90.000		-.3922	-.4156	-.5032	-.5712	-.8400	
135.000			-.3788	-.4167	-.6606		.4737
180.000		-.3679	-.3859	-.4041	-.5375	-.8611	
225.000					-.6959		.1441
270.000	-.3845	-.3845	-.4080			-.6363	
315.000			-.4798	-.5617	-.6820		-.4097

ALPHA (2) = -.340 BETA (2) = -.028 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3643	-.3704	-.4098	-.4100	-.4892	-.6674	
45.000			-.4357				
90.000		-.3920	-.4200	-.4706	-.5640	-.7639	
135.000			-.4079	-.4736	-.6340		.3622
180.000		-.3497	-.3677	-.3604	-.4572	-.6264	
225.000					-.6781		.3291

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H47)

ALPHA (2) = -.340 BETA (2) = -.028

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3691	-.3860	-.3815		-.5926		
315.000			-.4057	-.4512	-.6875	-.4007	

ALPHA (2) = -.340 BETA (3) = 3.991 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3557	-.3580	-.3895	-.3944	-.4481	-.6798	
45.000			-.4531				
90.000		-.3602	-.3797	-.3810	-.5373	-.7817	
135.000			-.3759	-.3861	-.5490		.0816
180.000		-.4028	-.3740	-.3965	-.4899	-.7271	
225.000					-.7216		.3421
270.000	-.3556	-.3702	-.3653			-.5144	
315.000			-.3746	-.3900	-.5769		-.4137

ALPHA (3) = 3.927 BETA (1) = -.028 MACH = .90080 RN/L = 3.1258 PO = 1559.5 P = 921.25

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3670	-.3721	-.4013	-.4190	-.4594	-.6815	
45.000			-.4059				
90.000		-.3700	-.3948	-.4410	-.5654	-.7943	
135.000			-.4111	-.5019	-.6483		.4237
180.000		-.3388	-.3763	-.3638	-.4608	-.6355	
225.000					-.6646		.3629
270.000	-.3726	-.3717	-.3793			-.5068	
315.000			-.3866	-.4081	-.5908		-.4182

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H48) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 3.250 MACH = 1.100

ALPHA (1) = -3.934 BETA (1) = .003 MACH = 1.0985 RN/L = 3.2696 PO = 1558.8 P = 731.42

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3927	-.4029	-.4339	-.4648	-.5514	-.3059	
45.000			-.4484				
90.000		-.4289	-.4383	-.4317	-.4359	-.4566	
135.000			-.4277	-.4524	-.5570		.3065
180.000		-.3975	-.4123	-.4810	-.5353	-.7155	
225.000					-.5807		.2952
270.000	-.4131	-.4245	-.4326			-.4450	
315.000			-.4872	-.5116	-.5855		-.0689

ALPHA (2) = -.413 BETA (1) = -4.006 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3912	-.4142	-.4196	-.4309	-.4948	-.3296	
45.000			-.4678				
90.000		-.4194	-.4311	-.4466	-.4683	-.6761	
135.000			-.4440	-.4742	-.5190		.6051
180.000		-.4051	-.4037	-.4189	-.5188	-.7029	
225.000					-.5086		.2328
270.000	-.4027	-.4187	-.4419			-.4487	
315.000			-.4687	-.4837	-.5610		-.0701

ALPHA (2) = -.443 BETA (2) = .000 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3574	-.3768	-.3956	-.4181	-.5089	-.3192	
45.000			-.3940				
90.000		-.3956	-.4296	-.4406	-.5268	-.5706	
135.000			-.4041	-.4331	-.5493		.3972
180.000		-.3323	-.3324	-.4668	-.5209	-.6943	
225.000					-.5682		.3767

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TABULATED SOURCE DATA - IA80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H48)

ALPHA (2) = -.443 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3735	-.3867	-.4126			-.5327	
315.000				-.3951	-.4096	-.4796		-.0789

ALPHA (2) = -.420 BETA (3) = 4.016 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4048		-.4213	-.4259	-.4354	-.4995	-.3292	
45.000				-.4377				
90.000			-.4193	-.4349	-.4391	-.4438	-.4534	
135.000				-.4354	-.4603	-.5122		.2141
180.000			-.4119	-.4222	-.4960	-.6799	-.7942	
225.000						-.5562		.4696
270.000		-.4126	-.4146	-.4262			-.6327	
315.000				-.5066	-.5335	-.6055		-.1186

ALPHA (3) = 3.884 BETA (1) = .000 MACH = 1.1080 RN/L = 3.2705 PO = 1558.1 P = 722.58

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3931		-.3988	-.4168	-.4331	-.5180	-.3189	
45.000				-.4594				
90.000			-.4023	-.4223	-.4241	-.4537	-.6768	
135.000				-.4126	-.4507	-.5549		.4510
180.000			-.4271	-.4145	-.4720	-.5253	-.7588	
225.000						-.5611		.3510
270.000		-.3975	-.3997	-.4347			-.5735	
315.000				-.4782	-.5145	-.6270		-.1327

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H49) (21 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 ALPHA = .000

BETA (1) = -.063 MACH (1) = .908 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3303 -.3293 -.3540 -.3618 -.4162 -.6710
 45.000 -.3756
 90.000 -.3365 -.3831 -.4275 -.5062 -.7373
 135.000 -.3696 -.4520 -.5978 .3725
 180.000 -.3098 -.3400 -.3428 -.4477 -.6150
 225.000 -.6478 .3525
 270.000 -.3319 -.3344 -.3418 -.5254
 315.000 -.3572 -.3948 -.5729 -.4006

BETA (1) = -.063 MACH (2) = .947 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2795 -.3843 -.4063 -.4210 -.4905 -.5639
 45.000 -.4562
 90.000 -.3818 -.4199 -.4576 -.5674 -.7903
 135.000 -.4105 -.4933 -.6267 .3807
 180.000 -.3547 -.3788 -.3839 -.4938 -.6656
 225.000 -.6718 .3694
 270.000 -.2814 -.3797 -.3919 -.5614
 315.000 -.4468 -.5465 -.7139 -.3291

BETA (1) = -.063 MACH (3) = .998 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4210 -.4377 -.4637 -.4827 -.6070 -.4797
 45.000 -.4902
 90.000 -.4399 -.4642 -.4864 -.6229 -.7368
 135.000 -.4642 -.5242 -.6549 .3652
 180.000 -.4160 -.4310 -.4268 -.5405 -.7566
 225.000 -.6924 .3826

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4449)

BETA (1) = -.063 MACH (3) = .998

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.4243	-.4377	-.4551			-.6412
315.000				-.5197	-.5167	-.6291	-.2275

BETA (1) = -.063 MACH (4) = 1.050 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.4160		-.4429	-.4542	-.4916	-.6408	-.3862
45.000				-.4770			
90.000			-.4679	-.4890	-.5128	-.6203	-.5841
135.000				-.4535	-.4886	-.6082	.3361
180.000			-.4193	-.4331	-.4312	-.5304	-.7500
225.000						-.6402	.3765
270.000	-.4581	-.4644	-.5055			-.5214	
315.000			-.5095	-.5427	-.6609		-.1364

BETA (1) = -.063 MACH (5) = 1.102 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3592		-.3922	-.4115	-.4470	-.5895	-.3166
45.000				-.4243			
90.000			-.4207	-.4447	-.4576	-.5126	-.6036
135.000				-.3979	-.4270	-.5330	.3916
180.000			-.3670	-.3764	-.3838	-.4832	-.7117
225.000						-.5700	.3862
270.000	-.3850	-.4119	-.4233			-.5474	
315.000			-.4212	-.4287	-.5477		-.0802

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H49)

BETA (1) = -.063 MACH (6) = 1.146 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI	.000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
.000	-.3523		-.3597	-.3955	-.4313	-.5724	-.2807	
45.000				-.4303				
90.000			-.3674	-.3738	-.3844	-.3931	-.5962	
135.000				-.3547	-.3739	-.4900		.4421
180.000			-.3766	-.3645	-.3890	-.4735	-.6733	
225.000						-.5376		.4216
270.000		-.3501	-.3572	-.3996			-.5879	
315.000				-.4395	-.4657	-.5802		-.0718

BETA (1) = -.063 MACH (7) = 1.196 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI	.000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
.000	-.3426		-.3431	-.3869	-.4316	-.5438	-.2231	
45.000				-.4521				
90.000			-.3509	-.3582	-.3570	-.3882	-.5357	
135.000				-.3349	-.3648	-.4605		.4422
180.000			-.3683	-.3640	-.3774	-.4585	-.6355	
225.000						-.5089		.4065
270.000		-.3357	-.3387	-.3949			-.5612	
315.000				-.4180	-.4412	-.5571		-.0435

BETA (1) = -.063 MACH (8) = 1.253 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI	.000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
.000	-.3087		-.3074	-.3644	-.4204	-.5015	-.1625	
45.000				-.4077				
90.000			-.3274	-.3326	-.3310	-.3492	-.4741	
135.000				-.3144	-.3406	-.4225		.4809
180.000			-.3339	-.3306	-.3223	-.4000	-.5637	
225.000						-.4580		.4025
270.000		-.3053	-.3068	-.3583			-.5024	
315.000				-.4107	-.4337	-.5340		-.0076

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H50) (21 JAN 75)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 4.000
 RN/L = 4.250 ALPHA = .000

BETA (1) = -.063 MACH (1) = .893 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3680 -.3670 -.3930 -.3991 -.4508 -.7082
 45.000 -.4218
 90.000 -.3763 -.4292 -.4801 -.5691 -.7867
 135.000 -.4137 -.4972 -.6432 .3624
 180.000 -.3699 -.3822 -.4586 -.5043 -.6061
 225.000 -.7007 .3188
 270.000 -.3761 -.3760 -.3843 -.5679
 315.000 -.3969 -.4315 -.6243 -.4313

BETA (1) = -.063 MACH (2) = .948 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4523 -.4704 -.4848 -.5047 -.6124 -.5837
 45.000 -.5445
 90.000 -.4687 -.4926 -.5271 -.6584 -.8884
 135.000 -.4890 -.5715 -.6953 .3706
 180.000 -.4424 -.4411 -.5300 -.5728 -.7839
 225.000 -.7513 .3561
 270.000 -.4590 -.4570 -.4731 -.6704
 315.000 -.5668 -.6643 -.8172 -.3316

BETA (1) = -.063 MACH (3) = .995 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.5084 -.5317 -.5533 -.5906 -.7433 -.4868
 45.000 -.5478
 90.000 -.5436 -.5669 -.5851 -.6897 -.7758
 135.000 -.5497 -.6091 -.7355 .3546
 180.000 -.5084 -.5019 -.5972 -.6399 .0000
 225.000 -.7673 .3709

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H50)

BETA (1) = -.063 MACH (3) = .995

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000 -.5197 -.5405 -.5623 -.5899 -.7316 -.7247

315.000 -.5785 -.5899 -.7316 -.2332

BETA (1) = -.063 MACH (4) = 1.052 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.4349 -.4625 -.4834 -.5172 -.6648 -.3833

45.000 -.4957

90.000 -.4944 -.5272 -.5471 -.6082 -.5725

135.000 -.4801 -.5177 -.6380 .3351

180.000 -.4464 -.4485 -.5346 -.5946 -.8371

225.000 -.6731 .3748

270.000 -.4782 -.4887 -.5242 -.5242

315.000 -.5290 -.5500 -.6844 -.1334

BETA (1) = -.063 MACH (5) = 1.098 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3644 -.3834 -.4056 -.4429 -.5844 -.3250

45.000 -.4063

90.000 -.4017 -.4235 -.4266 -.5041 -.5956

135.000 -.4044 -.4295 -.5500 .3832

180.000 -.3823 -.3942 -.4692 -.5239 -.7641

225.000 -.5801 .3783

270.000 -.3780 -.3935 -.4126 -.5414

315.000 -.4114 -.4298 -.5300 -.0860

ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H50)

BETA (1) = -.063 MACH (6) = 1.149 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3405	-.3474	-.3804	-.4171	-.5602	-.2765	
45.000			-.4049				
90.000		-.3427	-.3485	-.3522	-.3776	-.5975	
135.000			-.3688	-.3882	-.5111		.4450
180.000		-.3779	-.3928	-.4255	-.4512	-.6552	
225.000					-.5496		.4110
270.000	-.3389	-.3331	-.3726			-.5802	
315.000			-.4586	-.4855	-.5961		-.0694

BETA (1) = -.063 MACH (7) = 1.197 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3028	-.2999	-.3441	-.3891	-.5124	-.2205	
45.000			-.3848				
90.000		-.3015	-.3122	-.3083	-.3327	-.5412	
135.000			-.3308	-.3466	-.4682		.4405
180.000		-.3446	-.3658	-.3892	-.4150	-.5965	
225.000					-.4993		.3912
270.000	-.2983	-.2963	-.3394			-.5506	
315.000			-.4252	-.4511	-.5746		-.0408

BETA (1) = -.063 MACH (8) = 1.250 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2690	-.2623	-.3146	-.3688	-.4788	-.1621	
45.000			-.3196				
90.000		-.2747	-.2833	-.2840	-.2997	-.4870	
135.000			-.2898	-.3288	-.4446		.4608
180.000		-.3161	-.3383	-.3645	-.3709	-.5239	
225.000					-.4468		.3804
270.000	-.2662	-.2603	-.3047			-.5021	
315.000			-.3766	-.4280	-.5316		-.0095

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H51) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = .980

ALPHA (1) = -3.950 BETA (1) = -.063 MACH = .98240 RN/L = 4.3057 PO = 2116.2 P = 1141.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4031 -.4190 -.4323 -.4545 -.5295 -.5180
 45.000 -.4522
 90.000 -.4266 -.4607 -.4993 -.5893 -.6538
 135.000 -.4237 -.4618 -.5915 .2479
 180.000 -.3967 -.4093 -.4102 -.5124 -.7154
 225.000 -.6678 .2428
 270.000 -.4062 -.4141 -.4493 -.6219
 315.000 -.4591 -.5183 -.6143 -.2483

ALPHA (2) = -.416 BETA (1) = -4.075 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4183 -.4343 -.4500 -.4646 -.5170 -.5247
 45.000 -.5244
 90.000 -.4204 -.4452 -.4996 -.6192 -.8470
 135.000 -.4204 -.4595 -.6986 .5110
 180.000 -.4126 -.4213 -.4634 -.5803 -.7236
 225.000 -.6625 .1964
 270.000 -.4073 -.4087 -.4417 -.6801
 315.000 -.4452 -.4454 -.5015 -.2601

ALPHA (2) = -.386 BETA (2) = -.063 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4110 -.4184 -.4559 -.4731 -.5907 -.4972
 45.000 -.4805
 90.000 -.4283 -.4589 -.4841 -.6119 -.7509
 135.000 -.4484 -.5052 -.6403 .3528
 180.000 -.4054 -.4134 -.4114 -.5306 -.7379
 225.000 -.6977 .3771

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H51)

ALPHA (2) = -.386 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.4139	-.4250	-.4406			-.6180	
315.000				-.5301	-.5679	-.6691		-.2400

ALPHA (2) = -.370 BETA (3) = 3.950 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4017		-.4090	-.4158	-.4206	-.4660	-.5229	
45.000				-.4363				
90.000			-.4243	-.4566	-.4808	-.6008	-.6868	
135.000				-.4509	-.4909	-.5864		.1452
180.000			-.4184	-.4369	-.4402	-.5593	-.8472	
225.000						-.6763		.3740
270.000	-.4145	-.4132	-.4217				-.6143	
315.000			-.4907	-.5215	-.6347			-.2700

ALPHA (3) = 4.076 BETA (1) = -.063 MACH = .98530 RN/L = 4.3166 PO = 2116.2 P = 1137.1

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4236		-.4265	-.4649	-.4909	-.5840	-.5085	
45.000				-.4305				
90.000			-.4305	-.4594	-.5035	-.6261	-.8582	
135.000				-.4625	-.5329	-.6729		.4214
180.000			-.4132	-.4208	-.4201	-.5337	-.7506	
225.000						-.5927		.4146
270.000	-.4298	-.4285	-.4429				-.6051	
315.000			-.4846	-.5991	-.8316			-.2835

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H52) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = .980

ALPHA (1) = -3.930 BETA (1) = -.063 MACH = .97970 RN/L = 4.2999 PO = 2109.1 P = 1140.7

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.5070		-.5225	-.5399	-.5655	-.6667	-.5245	
45.000				-.5615				
90.000			-.5358	-.5743	-.5973	-.6402	-.7114	
135.000				-.5416	-.5754	-.7044		.2360
180.000			-.5048	-.5061	-.6023	-.6378	-.9202	
225.000						-.7440		.2321
270.000	-.5299	-.5422	-.5689			-.6744		
315.000			-.5813	-.6461	-.7436		-.2561	

ALPHA (2) = -.519 BETA (1) = -.4078 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4900		-.5083	-.5244	-.5338	-.6154	-.5312	
45.000				-.5972				
90.000			-.4939	-.5176	-.5585	-.6948	-.8948	
135.000				-.4807	-.5267	-.7527		.5048
180.000			-.4924	-.4831	-.5384	-.7298	.0000	
225.000						-.7125		.1852
270.000	-.4776	-.4807	-.5231			-.7048		
315.000			-.5125	-.5300	-.6152		-.2641	

ALPHA (2) = -.476 BETA (2) = -.063 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4940		-.5219	-.5481	-.5707	-.7278	-.4962	
45.000				-.5401				
90.000			-.5370	-.5571	-.5661	-.6262	-.7878	
135.000				-.5438	-.5940	-.7251		.3375
180.000			-.5017	-.4944	-.5869	-.6307	-.8942	
225.000						-.7741		.3517

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H52)

ALPHA (2) = -.476 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.5091	-.5295	-.5468		-.6828	
315.000				-.5861	-.5894	-.6888	-.2398

ALPHA (2) = -.499 BETA (3) = 3.953 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.4830		-.4850	-.4870	-.5095	-.5789	-.5276
45.000				-.5170			
90.000			-.5044	-.5368	-.5674	-.6727	-.7384
135.000				-.5292	-.5704	-.6520	.1294
180.000			-.4959	-.5248	-.6088	-.6865	.0000
225.000						-.6922	.3626
270.000		-.4898	-.4851	-.5133		-.7848	
315.000				-.5771	-.5904	-.6928	-.2756

ALPHA (3) = 3.993 BETA (1) = -.063 MACH = .98140 RN/L = 4.3065 PO = 2109.8 P = 1138.9

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.5240		-.5297	-.5596	-.5920	-.7318	-.5189
45.000				-.6057			
90.000			-.5297	-.5540	-.5786	-.6756	-.9261
135.000				-.5610	-.6368	-.7670	.4157
180.000			-.5153	-.5102	-.6014	-.6423	-.9020
225.000						-.7751	.3951
270.000		-.5227	-.5281	-.5546		-.7344	
315.000				-.6315	-.7148	-.8658	-.2956

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TABULATED SOURCE DATA - 1A90

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4433) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.944 BETA (1) = .000 MACH = .60320 RN/L = 3.4712 PO = 2123.2 P = 1660.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3324	-.2708	-.2697	-.3276	-.6508	-.8236	
45.000			-.3316				
90.000		-.3280	-.3730	-.4044	-.5694	-.7532	
135.000			-.3421	-.3963	-.5943		.2276
180.000		-.3122	-.3424	-.3660	-.4263	-.6671	
225.000					-.6963		.1600
270.000	-.3210	-.3045	-.3293			-.6343	
315.000			-.3246	-.3387	-.4593		-.5463

ALPHA (2) = -.320 BETA (1) = -4.050 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3114	-.2496	-.2728	-.2899	-.5975	-.7467	
45.000			-.3279				
90.000		-.3134	-.4078	-.4497	-.4980	-.7349	
135.000			-.3587	-.3859	-.6237		.3358
180.000		-.3198	-.3396	-.3769	-.4494	-.6580	
225.000					-.6518		.0998
270.000	-.3044	-.2980	-.3054			-.5826	
315.000			-.3050	-.3121	-.4440		-.5590

ALPHA (2) = -.297 BETA (2) = .000 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2987	-.2493	-.2550	-.2933	-.6203	-.8138	
45.000			-.3108				
90.000		-.3128	-.3672	-.3927	-.5211	-.7076	
135.000			-.3296	-.3843	-.5961		.2630
180.000		-.3014	-.3296	-.3470	-.4255	-.6595	
225.000					-.6823		.2044

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H53)

ALPHA (2) = -.297 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2930	-.2889	-.3121			-.6184	
315.000				-.3020	-.2983	-.3880		-.5358

ALPHA (2) = -.314 BETA (3) = 3.978 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = .656.7

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2917		-.2493	-.2693	-.2724	-.5767	-.8317
45.000					-.2954			
90.000				-.3076	-.3290	-.3491	-.5201	-.6917
135.000					-.3084	-.3277	-.4778	.0784
180.000				-.2869	-.3150	-.3250	-.4432	-.6566
225.000							-.6884	.2525
270.000		-.2871	-.2966	-.3137			-.6579	
315.000				-.3040	-.3107	-.4057		-.5419

ALPHA (3) = 4.053 BETA (1) = .000 MACH = .60520 RN/L = 3.4659 PO = 2121.8 P = 1656.8

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2870		-.2293	-.2429	-.2798	-.6172	-.8214
45.000					-.3087			
90.000				-.2969	-.3583	-.3985	-.4792	-.6366
135.000					-.3248	-.3697	-.5964	.3040
180.000				-.2922	-.3144	-.3301	-.4172	-.6446
225.000							-.6825	.2712
270.000		-.2783	-.2751	-.2745			-.5666	
315.000				-.2959	-.2983	-.4028		-.4959

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H54) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-03 = 4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.940 BETA (1) = -.044 MACH = .89610 RN/L = 4.1894 PO = 2105.5 P = 1250.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3290	-.3286	-.3551	-.3645	-.3961	-.7190	
45.000			-.3824				
90.000		-.3375	-.3826	-.4173	-.5103	-.7559	
135.000			-.3433	-.4075	-.5619		.2726
180.000		-.3119	-.3375	-.3397	-.4288	-.5959	
225.000					-.6711		.2689
270.000	-.3324	-.3287	-.3475			-.5872	
315.000			-.3680	-.4054	-.5568		-.4413

ALPHA (2) = -.284 BETA (1) = -4.059 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3587	-.3407	-.3514	-.3675	-.3901	-.7146	
45.000			-.3716				
90.000		-.3475	-.4112	-.4754	-.5066	-.7554	
135.000			-.3536	-.3973	-.6405		.4685
180.000		-.3360	-.3612	-.4014	-.4797	-.7025	
225.000					-.6450		.1509
270.000	-.3578	-.3362	-.3511			-.5842	
315.000			-.3936	-.4590	-.5819		-.4298

ALPHA (2) = -.320 BETA (2) = -.041 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3152	-.3017	-.3453	-.3433	-.4011	-.6949	
45.000			-.3724				
90.000		-.3326	-.3903	-.4253	-.4998	-.6986	
135.000			-.3575	-.4282	-.5883		.3658
180.000		-.3056	-.3277	-.3281	-.4367	-.5968	
225.000					-.6453		.3405

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H54)

ALPHA (2) = -.320 BETA (2) = -.041

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3170	-.3287	-.3285			-.5439
315.000				-.3456	-.3626	-.5113	-.4171

ALPHA (2) = -.314 BETA (3) = 3.975 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3456		-.3668	-.3575	-.3757	-.3945	-.7202
45.000				-.3854			
90.000			-.3331	-.3644	-.3778	-.5181	-.7929
135.000				-.3553	-.3839	-.5085	.0775
180.000			-.3489	-.3504	-.3739	-.4621	-.7169
225.000						-.7135	.3342
270.000	-.3456	-.3289	-.3442				-.4883
315.000			-.3497	-.3958	-.4716		-.4398

ALPHA (3) = 3.980 BETA (1) = -.038 MACH = .89310 RN/L = 4.1769 PO = 2101.3 P = 1251.7

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3169		-.3055	-.3393	-.3465	-.3971	-.6943
45.000				-.3454			
90.000			-.3240	-.3520	-.4048	-.4997	-.7192
135.000				-.3662	-.4494	-.6045	.4279
180.000			-.3016	-.3206	-.3297	-.4303	-.5930
225.000						-.6210	.3813
270.000	-.3140	-.3171	-.3222				-.4388
315.000			-.3257	-.3471	-.4549		-.4154

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H55) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.772 BETA (1) = -.066 MACH = 1.1026 RN/L = 4.3661 PO = 2116.2 P = 987.87

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3669	-.3866	-.4332	-.4829	-.6166	-.2945	
45.000			-.4288				
90.000		-.4219	-.4640	-.4639	-.4549	-.4514	
135.000			-.3998	-.4273	-.5345		.3273
180.000		-.3778	-.3835	-.3939	-.4790	-.6864	
225.000					-.5419		.3109
270.000	-.4076	-.4220	-.4295			-.4398	
315.000			-.4595	-.4876	-.6071		-.0674

ALPHA (2) = -.380 BETA (1) = -.4075 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3976	-.4240	-.4384	-.4562	-.5644	-.3251	
45.000			-.4670				
90.000		-.4323	-.4520	-.4635	-.4794	-.6728	
135.000			-.4543	-.4868	-.6381		.6173
180.000		-.4022	-.4024	-.4238	-.5200	-.6962	
225.000					-.5119		.2484
270.000	-.4092	-.4254	-.4526			-.4425	
315.000			-.4696	-.4894	-.6062		-.0638

ALPHA (2) = -.357 BETA (2) = -.059 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3472	-.3785	-.3392	-.4350	-.5808	-.3142	
45.000			-.4087				
90.000		-.4080	-.4297	-.4407	-.5146	-.5976	
135.000			-.3926	-.4130	-.5210		.3965
180.000		-.3487	-.3518	-.3652	-.4613	-.6900	
225.000					-.5548		.3931

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H55)

ALPHA (2) = -.357 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3672	-.3940	-.4030			-.5348	
315.000				-.4085	-.4213	-.5403		-.0789

ALPHA (2) = -.367 BETA (3) = 3.956 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.4153		-.4274	-.4391	-.4521	-.5549	-.3292
45.000					-.4569			
90.000				-.4230	-.4372	-.4431	-.4495	-.4534
135.000					-.4345	-.4589	-.5212	.2269
180.000				-.4097	-.4192	-.4206	-.5413	.0000
225.000						-.5561		.4808
270.000		-.4208	-.4235	-.4352			-.6489	
315.000				-.5115	-.5382	-.6388		-.1171

ALPHA (3) = 4.092 BETA (1) = -.059 MACH = 1.0997 RN/L = 4.3718 PO = 2114.7 P = 990.85

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.4026		-.4207	-.4368	-.4617	-.5922	-.3272
45.000					-.4663			
90.000				-.4455	-.4590	-.4662	-.4777	-.6919
135.000					-.4390	-.4702	-.5696	.4429
180.000				-.4117	-.4100	-.4304	-.5320	-.7715
225.000						-.5632		.3486
270.000		-.4111	-.4276	-.4390			-.6553	
315.000				-.4650	-.4930	-.6378		-.1344

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H56) (13 JAN 75)

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.950 BETA (1) = -.063 MACH = 1.2534 RN/L = 4.3988 PC = 2111.9 P = 811.60

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3164 -.3307 -.3911 -.4590 -.4888 -.1466
 45.000 -.3949
 90.000 -.3663 -.3953 -.3940 -.3989 -.4916
 135.000 -.3368 -.3676 -.4497 .4488
 180.000 -.3122 -.3207 -.3182 -.3820 -.5510
 225.000 -.4426 .3445
 270.000 -.3318 -.3377 -.3833 -.4776
 315.000 -.3695 -.3922 -.5069 -.0248

ALPHA (2) = -.324 BETA (1) = -4.075 MACH = 1.2533 RN/L = 4.3973 PC = 2112.4 P = 811.59

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3255 -.3460 -.3976 -.4267 -.5248 -.1804
 45.000 -.4163
 90.000 -.3719 -.3852 -.3857 -.3902 -.4773
 135.000 -.3673 -.3970 -.4450 .6377
 180.000 -.3255 -.3207 -.3428 -.4231 -.5112
 225.000 -.3980 .2796
 270.000 -.3200 -.3323 -.3876 -.5005
 315.000 -.4263 -.4405 -.5111 -.0108

ALPHA (2) = -.314 BETA (2) = -.063 MACH = 1.2533 RN/L = 4.3973 PC = 2112.4 P = 811.89

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3300 -.3054 -.3601 -.4163 -.4875 -.1489
 45.000 -.4160
 90.000 -.3427 -.3594 -.3484 -.3572 -.4790
 135.000 -.3245 -.3463 -.4325 .4972
 180.000 -.2954 -.2998 -.2846 -.3610 -.5600
 225.000 -.4459 .4012

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H56)

ALPHA (2) = -.314 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3089	-.3081	-.3591			-.5109	
315.000			-.3692	-.4141	-.5179		-.0076

ALPHA (2) = -.343 BETA (3) = 3.953 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3254		-.3432	-.3750	-.4115	-.5083	-.1847
45.000				-.4460			
90.000			-.3379	-.3350	-.3351	-.3553	-.5107
135.000				-.3422	-.3677	-.4244	.1993
180.000			-.3174	-.3234	-.3332	-.4169	-.6377
225.000						-.4052	.4812
270.000	-.3406	-.3377	-.3894			-.4657	
315.000			-.4693	-.4939	-.5557		-.0107

ALPHA (3) = 3.967 BETA (1) = -.066 MACH = 1.2519 RN/L = 4.3949 PO = 2112.6 P = 813.49

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3066		-.3017	-.3495	-.3708	-.4728	-.1762
45.000				-.3934			
90.000			-.3230	-.3302	-.3363	-.3522	-.4811
135.000				-.3173	-.3385	-.3955	.4670
180.000			-.3347	-.3291	-.3338	-.4098	-.5912
225.000						-.3959	.3857
270.000	-.3047	-.3074	-.3529			-.4459	
315.000			-.4279	-.4980	-.5528		-.0126

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H57) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.953 BETA (1) = -.063 MACH = 1.4049 RN/L = 4.3087 PO = 2128.2 P = 664.20

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2941		-.2903	-.3116	-.3292	-.3771	-.1883	
45.000				-.3321				
90.000			-.3085	-.3064	-.3033	-.3030	-.3839	
135.000				-.3331	-.3591	-.4096		.4678
180.000			-.3198	-.3174	-.3048	-.4021	-.4313	
225.000						-.3940		.3434
270.000	-.2969		-.3044	-.3146			-.3788	
315.000				-.3138	-.3561	-.4130		-.0703

ALPHA (2) = -.317 BETA (1) = -.4075 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2843		-.2838	-.3020	-.3213	-.3887	-.1648	
45.000				-.3137				
90.000			-.3408	-.3358	-.3311	-.3242	-.3484	
135.000				-.3850	-.3827	-.2620		.5524
180.000			-.2832	-.2820	-.3015	-.3420	-.3654	
225.000						-.3420		.2695
270.000	-.2568		-.2800	-.2893			-.3578	
315.000				-.3088	-.3290	-.4054		-.0422

ALPHA (2) = -.320 BETA (2) = -.059 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2610		-.2554	-.2781	-.3012	-.3688	-.1739	
45.000				-.2771				
90.000			-.2999	-.3018	-.2945	-.2873	-.3850	
135.000				-.3127	-.3255	-.3594		.5399
180.000			-.2662	-.2561	-.2314	-.3016	-.4268	
225.000						-.3279		.3811

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H57)

ALPHA (2) = -.320 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2655	-.2699	-.3190			-.3979	
315.000			-.2828	-.3121	-.3837		-.0422

ALPHA (2) = -.522 BETA (3) = 3.956 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 654.76

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2772		-.2775	-.3004	-.3164	-.3876	-.1627	
45.000				-.3266				
90.000			-.2835	-.2814	-.2816	-.2865	-.3512	
135.000				-.2816	-.3019	-.3445		.2123
180.000			-.2677	-.2755	-.2982	-.3452	-.5055	
225.000						-.2804		.4391
270.000	-.2960	-.2931	-.3285				-.3812	
315.000			-.2947	-.3499	-.4031			-.0457

ALPHA (3) = 4.208 BETA (1) = -.069 MACH = 1.4030 RN/L = 4.2923 PO = 2121.8 P = 653.96

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2404		-.2408	-.2861	-.3180	-.3885	-.0688	
45.000				-.3149				
90.000			-.2419	-.3062	-.3200	-.3708	-.3950	
135.000				-.3350	-.3222	-.3353		.5273
180.000			-.2604	-.2466	-.2196	-.2875	-.4255	
225.000						-.3177		.4017
270.000	-.2418	-.2402	-.2758				-.3994	
315.000			-.2934	-.3990	-.3781			.0446

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET 9ASE

(RE4H58) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.953 BETA (1) = .000 MACH = .59380 RN/L = 3.3921 PO = 2104.8 P = 1658.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-1.3669		-.3025	-.3040	-.3726	-.6948	-.8659	
45.000				-.3691				
90.000			-.3552	-.4147	-.4370	-.5951	-.8094	
135.000				-.3816	-.4265	-.6277		.2072
180.000			-.3409	-.3723	-.3820	-.4453	-.6927	
225.000						-.7299		.1335
270.000		-1.3493	-.3350	-.3625			-.6858	
315.000				-.3604	-.3723	-.5019		-.5846

ALPHA (2) = -.343 BETA (1) = -4.050 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-1.3413		-.2774	-.2972	-.3203	-.6527	-.8851	
45.000				-.3614				
90.000			-.3445	-.4261	-.4768	-.5560	-.7644	
135.000				-.3804	-.3860	-.6610		.3222
180.000			-.3404	-.3722	-.3880	-.4375	-.7025	
225.000						-.5734		.0770
270.000		-1.3269	-.3195	-.3366			-.6111	
315.000				-.3252	-.3411	-.4728		-.5991

ALPHA (2) = -.380 BETA (2) = .000 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-1.3421		-.2812	-.2883	-.3326	-.6762	-.8603	
45.000				-.3509				
90.000			-.3456	-.4032	-.4275	-.5659	-.7435	
135.000				-.3650	-.4189	-.6324		.2421
180.000			-.3364	-.3611	-.3704	-.4334	-.6872	
225.000						-.7241		.1765

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H58)

ALPHA (2) = -.380 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3308	-.3217	-.3491			-.6646	
315.000			-.3353	-.3339	-.4358		-.5725

ALPHA (2) = -.365 BETA (3) = 3.978 MACH = .59597 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3408	-.2916	-.2962	-.3185	-.6337	-.8808	
45.000			-.3401				
90.000		-.3432	-.3753	-.3868	-.5662	-.7536	
135.000			-.3488	-.3676	-.5227		.0555
180.000		-.3223	-.3568	-.3596	-.4511	-.6977	
225.000					-.7395		.2277
270.000	-.3301	-.3317	-.3491			-.7126	
315.000			-.3429	-.3565	-.4493		-.5784

ALPHA (3) = 3.993 BETA (1) = -.003 MACH = .59700 RN/L = 3.4043 PO = 2104.8 P = 1654.1

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3285	-.2664	-.2751	-.3234	-.6827	-.8716	
45.000			-.3503				
90.000		-.3330	-.3952	-.4390	-.5248	-.6996	
135.000			-.3627	-.4148	-.6389		.2853
180.000		-.3299	-.3496	-.3662	-.4328	-.6701	
225.000					-.7278		.2467
270.000	-.3247	-.3192	-.3154			-.6248	
315.000			-.3286	-.3323	-.4449		-.5297

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-023IAB0 OTS(SRB=N ORB=N) ET BASE

(RE4H59) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.983 BETA (1) = -.058 MACH = .89250 RN/L = 4.1747 PO = 2100.6 P = 1252.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.729		-.3733	-.3953	-.4113	-.4439	-.7288	
45.000				-.4242				
90.000			-.3797	-.4179	-.4587	-.5668	-.8040	
135.000				-.3825	-.4496	-.6045		.2691
180.000			-.3554	-.3750	-.3793	-.4592	-.6262	
225.000						-.7133		.2614
270.000	-.3731	-.3726	-.3854				-.6351	
315.000			-.4127	-.4651	-.6189			-.4526

ALPHA (2) = -.370 BETA (1) = -.4059 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.911		-.3770	-.3979	-.4173	-.4435	-.7155	
45.000				-.4208				
90.000			-.3870	-.4329	-.5101	-.5508	-.8595	
135.000				-.3823	-.4273	-.6590		.4571
180.000			-.3723	-.3942	-.4062	-.5193	-.8597	
225.000						-.6939		.1391
270.000	-.3921	-.3753	-.3919				-.6268	
315.000			-.4478	-.5228	-.6522			-.4289

ALPHA (2) = -.403 BETA (2) = -.044 MACH = .89213 RN/L = 4.1755 PO = 2100.4 P = 1252.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.551		-.3497	-.3948	-.3987	-.4654	-.6881	
45.000				-.4219				
90.000			-.3795	-.4293	-.4516	-.5586	-.7897	
135.000				-.4060	-.4735	-.6268		.3607
180.000			-.3533	-.3745	-.3606	-.4627	-.6230	
225.000						-.6848		.3351

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H59)

ALPHA (2) = -.403 BETA (2) = -.044

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3585	-.3703	-.3705			-.5896	
315.000			-.3957	-.4087	-.6346		-.4152

ALPHA (2) = -.409 BETA (3) = 3.972 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3756		-.3824	-.3907	-.4001	-.4231	-.7240
45.000				-.4255			
90.000			-.3528	-.3872	-.3964	-.5380	-.8326
135.000				-.3935	-.4093	-.5403	.0701
180.000			-.3695	-.3842	-.4149	-.5002	-.7147
225.000						-.7354	.3278
270.000	-.3754	-.3551	-.3677			-.5127	
315.000			-.3856	-.4097	-.5175		-.4454

ALPHA (3) = 4.076 BETA (1) = -.041 MACH = .89250 RN/L = 4.1726 PO = 2099.9 P = 1251.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3634		-.3524	-.3875	-.3970	-.4454	-.7013
45.000				-.3960			
90.000			-.3678	-.4011	-.4432	-.5567	-.8088
135.000				-.4158	-.4977	-.6474	.4162
180.000			-.3428	-.3699	-.3631	-.4552	-.6231
225.000						-.6639	.3698
270.000	-.3593	-.3661	-.3695			-.4782	
315.000			-.3750	-.3943	-.5281		-.4265

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H60) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = 4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = -.059 MACH = 1.1000 RN/L = 4.3718 PO = 2109.8 P = 988.18

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-3.739		-.3779	-.4246	-.4753	-.6120	-.2965	
45.000				-.4384				
90.000			-.4066	-.4088	-.4094	-.4165	-.4495	
135.000				-.4139	-.4369	-.5440		.3028
180.000			-.3857	-.4124	-.4710	-.5189	-.7050	
225.000						-.5669		.3031
270.000	-.3896	-.4029	-.4111				-.4433	
315.000			-.4410	-.4748	-.6001			-.0701

ALPHA (2) = -.528 BETA (1) = -4.075 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-3.899		-.4131	-.4259	-.4426	-.5411	-.3334	
45.000				-.4489				
90.000			-.4174	-.4332	-.4451	-.4649	-.6813	
135.000				-.4382	-.4773	-.6258		.6108
180.000			-.3895	-.3978	-.4208	-.5253	-.6964	
225.000						-.5212		.2313
270.000	-.4026	-.4131	-.4322				-.4532	
315.000			-.4684	-.4882	-.6068			-.0670

ALPHA (2) = -.492 BETA (2) = -.063 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-3.446		-.3608	-.3850	-.4197	-.5723	-.3115	
45.000				-.4152				
90.000			-.3598	-.3813	-.3943	-.4699	-.5677	
135.000				-.3737	-.4020	-.5296		.3969
180.000			-.3552	-.3939	-.4548	-.4938	-.7068	
225.000						-.5558		.3888

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TABULATED SOURCE DATA - 1A80

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ARC11-02J1A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H60)

ALPHA (2) = -.492 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3486	-.3574	-.3838			-.5166	
315.000			-.4030	-.4243	-.5524		-.0732

ALPHA (2) = -.532 BETA (3) = 3.956 MACH = 1.0987 RN/L = 4.3753 PO = 2110.0 P = 989.81

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.4039	-.4161	-.4301	-.4415	-.5390	-.3396	
45.000			-.4455				
90.000		-.4176	-.4338	-.4357	-.4488	-.4653	
135.000			-.4280	-.4550	-.5164		.2094
180.000		-.4062	-.4152	-.4890	-.6644	-.8277	
225.000					-.5588		.4619
270.000	-.4072	-.4142	-.4250		-.6233		
315.000		-.4924	-.5162	-.6472			-.1231

ALPHA (3) = 4.013 BETA (1) = -.063 MACH = 1.1000 RN/L = 4.3823 PO = 2110.5 P = 989.47

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3923	-.3980	-.4236	-.4467	-.5799	-.3263	
45.000			-.4493				
90.000		-.4041	-.4238	-.4221	-.4605	-.6864	
135.000			-.4182	-.4500	-.5619		.4439
180.000		-.4029	-.4097	-.4760	-.5271	-.7848	
225.000					-.5573		.3430
270.000	-.3977	-.3998	-.4275		-.5449		
315.000		-.4571	-.4877	-.6426			-.1319

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H61) (13 JAN 75)

REFERENCE DATA

SECT = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.960 BETA (1) = -.066 MACH = 1.2528 RN/L = 4.3924 PO = 2109.8 P = 811.49

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2875		-.2860	-.3418	-.4029	-.4835	-.1444	
45.000				-.3614				
90.000			-.3004	-.3097	-.3095	-.3211	-.4930	
135.000				-.3027	-.3313	-.4452		.4097
180.000			-.2998	-.3509	-.3590	-.3822	-.5559	
225.000						-.4649		.3191
270.000	-.2855	-.2803	-.3164				-.4812	
315.000			-.3614	-.3905	-.5025			-.0273

ALPHA (2) = -.505 BETA (1) = -4.075 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2789		-.2900	-.3315	-.3624	-.4791	-.1809	
45.000				-.3148				
90.000			-.3102	-.3219	-.3270	-.3352	-.4808	
135.000				-.3249	-.3524	-.4207		.6306
180.000			-.2933	-.2984	-.3210	-.3688	-.4205	
225.000						-.4109		.2536
270.000	-.2679	-.2688	-.3185				-.4883	
315.000			-.3775	-.4014	-.4804			-.0106

ALPHA (2) = -.459 BETA (2) = -.059 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2687		-.2614	-.3186	-.3711	-.4745	-.1466	
45.000				-.3231				
90.000			-.2748	-.2831	-.2832	-.2969	-.4896	
135.000				-.2845	-.3290	-.4538		.4749
180.000			-.3102	-.3360	-.3628	-.3686	-.5344	
225.000						-.4499		.3765

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H61)

ALPHA (2) = -.459 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2649	-.2619	-.3035			-.5067	
315.000			-.3781	-.4255	-.5265		-.0070

ALPHA (2) = -.462 BETA (3) = 3.953 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2767		-.2893	-.3213	-.3501	-.4655	-.1831
45.000				-.3888			
90.000			-.2804	-.3053	-.2871	-.3856	-.5039
135.000				-.3012	-.3371	-.3910	.1814
180.000			-.2794	-.3236	-.3630	-.4268	-.5880
225.000						-.3947	.4632
270.000	-.2905	-.2844	-.3349			-.4324	
315.000			-.3391	-.4759	-.5442		-.0103

ALPHA (3) = 4.006 BETA (1) = -.063 MACH = 1.2481 RN/L = 4.3945 PO = 2110.5 P = 815.88

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2710		-.2567	-.3080	-.3274	-.4394	-.1823
45.000				-.3155			
90.000			-.2750	-.2864	-.2914	-.3111	-.4795
135.000				-.2899	-.3133	-.4084	.4728
180.000			-.3144	-.3288	-.3594	-.3719	-.5544
225.000						-.4180	.3816
270.000	-.2695	-.2662	-.3085			-.4013	
315.000			-.3096	-.4696	-.5495		-.0168

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H62) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.937 BETA (1) = -.069 MACH = 1.3993 RN/L = 4.2798 PO = 2114.0 P = 664.93

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2287		-.2168	-.2358	-.2510	-.3210	-.1897	
45.000				-.2397				
90.000			-.2335	-.2369	-.2372	-.2375	-.3985	
135.000				-.2485	-.2968	-.3683		.4242
180.000			-.2558	-.2851	-.3415	-.3283	-.4272	
225.000						-.3822		.3142
270.000	-.2317	-.2358	-.2674				-.3955	
315.000			-.2624	-.3199	-.3938			-.0716

ALPHA (2) = -.486 BETA (1) = -4.078 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2237		-.2048	-.2288	-.2457	-.3351	-.1663	
45.000				-.2430				
90.000			-.2701	-.2637	-.2629	-.2610	-.3567	
135.000				-.3199	-.3290	-.2718		.5601
180.000			-.2388	-.2451	-.2519	-.2867	-.3185	
225.000						-.3232		.2328
270.000	-.2127	-.2138	-.2654				-.3392	
315.000			-.2451	-.3040	-.3912			-.0466

ALPHA (2) = -.486 BETA (2) = -.063 MACH = 1.3989 RN/L = 4.2773 PO = 2113.8 P = 665.32

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2162		-.1912	-.2184	-.2392	-.3278	-.1773	
45.000				-.2276				
90.000			-.2307	-.2326	-.2306	-.2326	-.4012	
135.000				-.2519	-.2935	-.3645		.5171
180.000			-.2426	-.2733	-.3427	-.3067	-.4229	
225.000						-.3450		.3525

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TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=N ORB=N) ET BASE

(RE4H62)

ALPHA (2) = -.486 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2155	-.2195	-.2545			-.4020	
315.000				-.2202	-.2706	-.3755		-.0471

ALPHA (2) = -.499 BETA (3) = 3.953 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2245		-.2265	-.2470	-.2626	-.3469	-.1549	
45.000				-.2569				
90.000			-.2260	-.2303	-.2263	-.2302	-.3523	
135.000				-.2340	-.2634	-.3090		.1943
180.000			-.2192	-.2575	-.3076	-.3370	-.4665	
225.000						-.3000		.4338
270.000	-.2394	-.2418		-.2717			-.3705	
315.000			-.2256	-.2480	-.3769			-.0494

ALPHA (3) = 4.020 BETA (1) = -.066 MACH = 1.3960 RN/L = 4.2780 PO = 2114.0 P = 668.11

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2018		-.1936	-.2507	-.2744	-.3710	-.0710	
45.000				-.2251				
90.000			-.2040	-.2586	-.2822	-.3266	-.4022	
135.000				-.3022	-.3213	-.3443		.5103
180.000			-.2314	-.2507	-.3003	-.2661	-.4168	
225.000						-.3144		.3900
270.000	-.1986	-.1971		-.2300			-.3792	
315.000				-.2149	-.3149	-.3530		.0506

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

ET BASE

(RE4H63) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
 RN/L = 4.250 MACH = .980

ALPHA (1) = -3.868 BETA (1) = -.063 MACH = .98020 RN/L = 4.3081 PO = 2109.8 P = 1140.4

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4902		-.5156	-.5260	-.5467	-.6488	-.5230	
45.000				-.5519				
90.000			-.5206	-.5608	-.5744	-.6345	-.7065	
135.000				-.5239	-.5638	-.6892		.2410
180.000			-.4963	-.4930	-.5883	-.6297	-.8994	
225.000						-.7381		.2393
270.000	-.5131	-.5295	-.5599				-.6704	
315.000			-.5658	-.6343	-.7414			-.2546

ALPHA (2) = -.485 BETA (1) = -4.075 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4902		-.5130	-.5323	-.5522	-.6110	-.5336	
45.000				-.5937				
90.000			-.4958	-.5228	-.5621	-.7007	-.9009	
135.000				-.4920	-.5272	-.7692		.5063
180.000			-.4926	-.4976	-.5429	-.7157	-1.0135	
225.000						-.7030		.1828
270.000	-.4771	-.4833	-.5248				-.7021	
315.000			-.5267	-.5377	-.6321			-.2646

ALPHA (2) = -.456 BETA (2) = -.063 MACH = .97937 RN/L = 4.3039 PO = 2108.4 P = 1140.7

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4890		-.5113	-.5260	-.5618	-.6952	-.5036	
45.000				-.5264				
90.000			-.5129	-.5408	-.5548	-.6893	-.7983	
135.000				-.5273	-.5937	-.7197		.3372
180.000				-.4842	-.5749	-.6077	-.8795	
225.000						-.7611		.3590

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) ET BASE

(RE4H63)

ALPHA (2) = -.455 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.4963	-.5120	-.5318			-.7117
315.000				-.6305	-.6509	-.7533	-.2477

ALPHA (2) = -.439 BETA (3) = 3.953 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.4711		-.4868	-.4858	-.4957	-.5566	-.5347
45.000				-.5136			
90.000			-.4927	-.5322	-.5527	-.6773	-.7510
135.000				-.5229	-.5570	-.6563	.1265
180.000			-.4989	-.5179	-.6061	-.6805	-1.0193
225.000						-.7025	.3612
270.000		-.4848	-.4892	-.5046			-.7619
315.000				-.5592	-.6035	-.6975	-.2812

ALPHA (3) = 4.013 BETA (1) = -.069 MACH = .98150 RN/L = 4.3090 PO = 2108.4 P = 1137.9

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.5126		-.5155	-.5486	-.5732	-.7135	-.5131
45.000				-.5788			
90.000			-.5171	-.5460	-.5637	-.6909	-.9227
135.000				-.5543	-.6277	-.7563	.4158
180.000			-.5065	-.4959	-.5962	-.6288	-.8886
225.000						-.7671	.3973
270.000		-.5185	-.5197	-.5373			-.7149
315.000				-.6160	-.7014	-.8829	-.2940

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H64) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.973 BETA (1) = -.047 MACH = .58500 RN/L = 3.4024 PO = 2096.3 P = 1662.8

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.156		-.2504	-.2624	-.3269	-.6623	-.8012	
45.000				-.3186				
90.000			-.3276	-.3580	-.3874	-.5700	-.7459	
135.000				-.3287	-.3718	-.5847		.2298
180.000			-.3043	-.3240	-.3505	-.4192	-.6525	
225.000						-.6812		.1608
270.000		-.3063	-.2997	-.3136		-.6240		
315.000				-.3083	-.3269	-.4667		-.5346

ALPHA (2) = -.277 BETA (1) = -4.066 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.140		-.2476	-.2712	-.2878	-.6194	-.8434	
45.000				-.3294				
90.000			-.3206	-.4052	-.4532	-.5327	-.7405	
135.000				-.3594	-.3802	-.6881		.3266
180.000			-.3319	-.3453	-.3760	-.4552	-.6516	
225.000						-.6528		.0927
270.000		-.3049	-.2924	-.3051		-.5926		
315.000				-.3019	-.3103	-.4612		-.5633

ALPHA (2) = -.291 BETA (2) = -.047 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.092		-.2497	-.2605	-.2991	-.6381	-.8206	
45.000				-.3176				
90.000			-.3176	-.3609	-.3861	-.5306	-.7208	
135.000				-.3361	-.3871	-.6002		.2541
180.000			-.3056	-.3350	-.3540	-.4322	-.6645	
225.000						-.6943		.1990

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H64)

ALPHA (2) = -.291 BETA (2) = -.047

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3001	-.2950	-.3139			-.6256	
315.000			-.3044	-.3115	-.4092		-.5466

ALPHA (2) = -.307 BETA (3) = 3.972 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3039	-.2583	-.2657	-.2870	-.6050	-.8411	
45.000			-.3072				
90.000		-.3122	-.3317	-.3654	-.5086	-.6938	
135.000			-.3139	-.3345	-.4820		.0702
180.000		-.2894	-.3267	-.3331	-.4419	-.6797	
225.000					-.6989		.2403
270.000	-.2993	-.2958	-.3246			-.6741	
315.000			-.3097	-.3147	-.4125		-.5437

ALPHA (3) = 3.957 BETA (1) = -.044 MACH = .59060 RN/L = 3.4224 PO = 2098.5 P = 1657.3

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2972	-.2334	-.2487	-.2895	-.6304	-.8285	
45.000			-.3156				
90.000		-.3030	-.3621	-.4030	-.4845	-.6452	
135.000			-.3315	-.3854	-.6061		.2941
180.000		-.2939	-.3241	-.3396	-.4215	-.6525	
225.000					-.6919		.2572
270.000	-.2828	-.2818	-.2850			-.5796	
315.000			-.2994	-.2980	-.4004		-.4996

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H65) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.977 BETA (1) = -.044 MACH = .89350 RN/L = 4.2056 PO = 2100.6 P = 1250.8

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3307 -.3279 -.3591 -.3665 -.3942 -.7253
.45.000 -.3748
90.000 -.3383 -.3963 -.4265 -.5171 -.7570
135.000 -.3485 -.4060 -.5666 .2753
180.000 -.3166 -.3391 -.3415 -.4325 -.6016
225.000 -.6757 -.2665
270.000 -.3346 -.3354 -.3473 -.5852
315.000 -.3699 -.4076 -.5519 -.4478

ALPHA (2) = -.304 BETA (1) = -.4063 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3496 -.3477 -.3578 -.3622 -.3886 -.7191
.45.000 -.3788
90.000 -.3450 -.4212 -.4695 -.5047 -.7373
135.000 -.3513 -.3943 -.6453 .4692
180.000 -.3388 -.3595 -.3987 -.4790 -.6906
225.000 -.6525 .1533
270.000 -.3584 -.3399 -.3533 -.5843
315.000 -.3866 -.4575 -.5783 -.4328

ALPHA (2) = -.314 BETA (2) = -.044 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3110 -.2995 -.3452 -.3361 -.3924 -.6913
.45.000 -.3718
90.000 -.3305 -.3928 -.4207 -.4986 -.6929
135.000 -.3572 -.4258 -.5928 .3636
180.000 -.3057 -.3246 -.3225 -.4399 -.5914
225.000 -.6493 .3432

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H65)

ALPHA (2) = -.314 BETA (2) = -.044

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
270.000		-.3139	-.3270	-.3272			-.5396	
315.000				-.3416	-.3635	-.5176		-.4127

ALPHA (2) = -.317 BETA (3) = 3.972 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
.000		-.3385	-.3544	-.3596	-.3747	-.3915	-.7183	
45.000				-.3896				
90.000			-.3357	-.3596	-.3745	-.5195	-.7964	
135.000				-.3569	-.3794	-.5077		.0809
180.000			-.3486	-.3538	-.3765	-.4666	-.7234	
225.000						-.7143		.3372
270.000		-.3447	-.3300	-.3390			-.4856	
315.000				-.3476	-.3826	-.4694		-.4346

ALPHA (3) = 3.930 BETA (1) = -.041 MACH = .89120 RN/L = 4.1708 PO = 2098.5 P = 1252.6

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
.000		-.3208	-.3102	-.3434	-.3596	-.3951	-.7019	
45.000				-.3481				
90.000			-.3252	-.3627	-.4083	-.5076	-.7032	
135.000				-.3674	-.4573	-.6096		.4235
180.000			-.3037	-.3276	-.3330	-.4342	-.6056	
225.000						-.6280		.3777
270.000		-.3216	-.3182	-.3301			-.4433	
315.000				-.3315	-.3575	-.4615		-.4209

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H66) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = -4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = -.063 MACH = 1.0996 RN/L = 4.4015 PO = 2123.2 P = 994.87

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -3.852 40 -.6325 -.3020
 45.000
 90.000 -.4544 -.4489
 135.000 .4422 -.5512 .3288
 180.000 .998 -.4078 -.4995 -.6968
 225.000 -.5595 .3112
 270.000 -.4185 -.4307 -.4335 -.4347
 315.000 -.4771 -.5050 -.6231 -.0593

ALPHA (2) = -.337 BETA (1) = -4.072 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -4.207 -.4413 -.4530 -.4742 -.5824 -.3349
 45.000 -.4901
 90.000 -.4518 -.4723 -.4851 -.4988 -.6981
 135.000 -.4758 -.5111 -.6613 .6353
 180.000 -.4188 -.4232 -.4484 -.5512 -.7337
 225.000 -.5294 .2529
 270.000 -.4286 -.4455 -.4756 -.4555
 315.000 -.4923 -.5119 -.6327 -.0693

ALPHA (2) = -.334 BETA (2) = -.059 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -3.591 -.3952 -.4123 -.4430 -.5822 -.3190
 45.000 -.4222
 90.000 -.4299 -.4521 -.4669 -.5317 -.5990
 135.000 -.4038 -.4295 -.5371 .3910
 180.000 -.3738 -.3812 -.3932 -.4932 -.7182
 225.000 -.5585 .3802

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H65)

ALPHA (2) = -.334 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000		-.4012	-.4141	-.4394			-.5249	
315.000			-.4104	-.4320	-.5417			-.0723

ALPHA (2) = -.376 BETA (3) = 3.950 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

P/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9630 1.0000

PHI								
.000	-.4125		-.4270	-.4388	-.4527	-.5608	-.3249	
45.000				-.4507				
90.000			-.4234	-.4344	-.4393	-.4454	-.4484	
135.000				-.4354	-.4637	-.5205		.2338
180.000			-.4119	-.4199	-.4220	-.5478	.0000	
225.000						-.5637		.4878
270.000	-.4194	-.4229	-.4386				-.6651	
315.000			-.5101	-.5422	-.6556			-.1165

ALPHA (3) = 3.953 BETA (1) = -.066 MACH = 1.1032 RN/L = 4.3993 PO = 2119.0 P = 988.53

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.4225		-.4290	-.4528	-.4772	-.6153	-.3338	
45.000				-.4823				
90.000			-.4509	-.4677	-.4825	-.5161	-.7099	
135.000				-.4563	-.4741	-.5815		.4739
180.000			-.4226	-.4230	-.4453	-.5646	-.8197	
225.000						-.5741		.3681
270.000	-.4194	-.4351	-.4551				-.6725	
315.000			-.4853	-.5332	-.6754			-.1360

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H67) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = -4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -.327 BETA (1) = -4.072 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3305	-.3508	-.3928	-.4311	-.5289	-.1839	
45.000			-.4343				
90.000		-.3735	-.3912	-.3912	-.3997	-.4826	
135.000			-.3716	-.4056	-.4539		.6464
180.000		-.3307	-.3253	-.3500	-.4328	-.5264	
225.000					-.3900		.2836
270.000	-.3316	-.3395	-.3941			-.5193	
315.000			-.4407	-.4468	-.5240		-.0117

ALPHA (1) = -.317 BETA (2) = -.059 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3020	-.3118	-.3619	-.4139	-.4983	-.1597	
45.000			-.4094				
90.000		-.3444	-.3643	-.3487	-.3613	-.4617	
135.000			-.3227	-.3391	-.3338		.4978
180.000		-.3030	-.3041	-.3074	-.3113	-.5756	
225.000					-.4539		.3999
270.000	-.3101	-.3120	-.3648			-.5178	
315.000			-.3967	-.4132	-.5244		-.0079

ALPHA (1) = -.340 BETA (3) = 3.950 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3281	-.3461	-.3782	-.4126	-.5153	-.1841	
45.000			-.4518				
90.000		-.3422	-.3380	-.3380	-.3591	-.5084	
135.000			-.3431	-.3684	-.4303		.2053
180.000		-.3206	-.3286	-.3356	-.4211	-.6435	
225.000					-.4074		.4762

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ARC11-0231A80 OTS(SRB=OFF ORB=CFF)

ET BASE

(RE4H67)

ALPHA (1) = -.340 BETA (3) = 3.950

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000 -.3435 -.3416 -.3908 -.4682
315.000 -.4637 -.4846 -.5517 -.0081

ALPHA (2) = .000 BETA (1) = -.063 MACH = 1.2510 RN/L = 4.4292 PO = 2123.9 P = 819.86

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3091 -.3095 -.3629 -.4163 -.5029 -.1678
45.000 -.3893
90.000 -.3342 -.3487 -.3363 -.3513 -.4778
135.000 -.3199 -.3380 -.4260 .4832
180.000 -.3377 -.3325 -.3355 -.4106 -.5763
225.000 -.4549 .4019
270.000 -.3064 -.3075 -.3630 -.5139
315.000 -.3988 -.4255 -.5298 -.0067

ALPHA (3) = 3.950 BETA (1) = -.066 MACH = 1.2490 RN/L = 4.4220 PO = 2123.2 P = 820.75

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3117 -.3107 -.3586 -.3810 -.4798 -.1795
45.000 -.3909
90.000 -.3307 -.3398 -.3450 -.3655 -.4785
135.000 -.3289 -.3490 -.3914 .4661
180.000 -.3468 -.3366 -.3688 -.4294 -.6026
225.000 -.4006 .3814
270.000 -.3103 -.3111 -.3575 -.4526
315.000 -.4512 -.5044 -.5610 -.0126

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H68) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.944 BETA (1) = -.059 MACH = 1.4046 RN/L = 4.3918 PO = 2123.2 P = 662.88

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2935		-.2932	-.3073	-.3241	-.3735	-.1867	
45.000				-.3294				
90.000			-.3081	-.3051	-.3026	-.3035	-.3855	
135.000				-.3274	-.3433	-.3992		.4827
180.000			-.3132	-.3143	-.3067	-.4152	-.4382	
225.000						-.3920		.3437
270.000	-.2915		-.3049	-.3110			-.3823	
315.000				-.3120	-.3522	-.4124		-.0650

ALPHA (2) = -.320 BETA (1) = -4.072 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2838		-.2843	-.3019	-.3206	-.3883	-.1604	
45.000				-.3138				
90.000			-.3389	-.3350	-.3297	-.3272	-.3467	
135.000				-.3852	-.3913	-.2597		.5598
180.000			-.2813	-.2807	-.3039	-.3483	-.3683	
225.000						-.3467		.2710
270.000	-.2587		-.2799	-.2891			-.3565	
315.000				-.3066	-.3247	-.4055		-.0412

ALPHA (2) = -.320 BETA (2) = -.059 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2601		-.2551	-.2764	-.3014	-.3659	-.1736	
45.000				-.2782				
90.000			-.3008	-.3081	-.2987	-.2945	-.3834	
135.000				-.3014	-.3225	-.3516		.5402
180.000			-.2665	-.2582	-.2359	-.3209	-.4345	
225.000						-.3469		.3798

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TABULATED SOURCE DATA - IAB0

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ARC11-0231AB0 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H68)

ALPHA (2) = -.320 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2654	-.2699	-.3215			-.3951	
315.000				-.2767	-.3126	-.3782		-.0392

ALPHA (2) = -.347 BETA (3) = 3.953 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2749		-.2768	.2970	-.3121	-.3805	-.1587
45.000					-.3226			
90.000				-.2814	-.2803	-.2783	-.2849	-.3470
135.000					-.2783	-.3000	-.3464	.2242
180.000				-.2675	-.2754	-.2978	-.3471	-.5204
225.000						-.2731		.4377
270.000		-.2946	-.2925	-.3257			-.3762	
315.000				-.2953	-.3536	-.4006		-.0394

ALPHA (3) = 3.550 BETA (1) = -.063 MACH = 1.4068 RN/L = 4.3541 PO = 2121.8 P = 660.41

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2395		-.2343	-.2852	-.3167	-.3847	-.0644
45.000					-.2943			
90.000				-.2506	-.3099	-.3238	-.3672	-.3858
135.000					-.3278	-.3172	-.3285	.5322
180.000				-.2612	-.2463	-.2390	-.3182	-.4393
225.000							-.3280	.4028
270.000		-.2416	-.2418	-.2740			-.3971	
315.000				-.2754	-.3943	-.3693		.0319

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRE=N ORB=N)

ET BASE

(RE4H69) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-03 = -4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.920 BETA (1) = -.044 MACH = .59500 RN/L = 3.4551 PO = 2109.8 P = 1660.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3500 -.2849 -.2980 -.3590 -.7006 -.8490
.45.000 -.3559
90.000 -.3603 -.4063 -.4192 -.6073 -.7922
135.000 -.3717 -.4171 -.6253 .2151
180.000 -.3423 -.3575 -.3763 -.4397 -.6799
225.000 -.7258 .1470
270.000 -.3434 -.3360 -.3530 -.6609
315.000 -.3465 -.3569 -.4862 -.5703

ALPHA (2) = -.376 BETA (1) = -4.066 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3401 -.2837 -.3034 -.3204 -.6567 -.8807
.45.000 -.3609
90.000 -.3553 -.4321 -.4811 -.5614 -.7690
135.000 -.3733 -.3943 -.6563 .3244
180.000 -.3439 -.3683 -.3923 -.4433 -.6929
225.000 -.6707 .0820
270.000 -.3256 -.3207 -.3289 -.6296
315.000 -.3272 -.3342 -.4903 -.5985

ALPHA (2) = -.373 BETA (2) = -.050 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3355 -.2740 -.2875 -.3316 -.6757 -.8587
.45.000 -.3425
90.000 -.3483 -.4287 -.4077 -.5552 -.7605
135.000 -.3661 -.4161 -.6317 .2428
180.000 -.3302 -.3576 -.3663 -.4431 -.6831
225.000 -.7235 .1822

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H69)

ALPHA (2) = -.373 BETA (2) = -.050

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3253	-.3203	-.3433			-.6699
315.000				-.3361	-.3291	-.4433	-.5756

ALPHA (2) = -.426 BETA (3) = 3.969 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000		-.3266	-.2826	-.2864	-.3136	-.6349	-.8772
45.000				-.3363			
90.000			-.3346	-.3560	-.3899	-.5403	-.7429
135.000				-.3413	-.3595	-.5076	.0568
180.000			-.3157	-.3559	-.3482	-.4440	-.6866
225.000						-.7353	.2282
270.000		-.3255	-.3201	-.3454		-.7078	
315.000				-.3294	-.3506	-.4421	-.5759

ALPHA (3) = 3.947 BETA (1) = -.044 MACH = .59880 RN/L = 3.4697 PO = 2109.8 P = 1655.6

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000		-.3398	-.2662	-.2835	-.3248	.5865	-.8692
45.000				-.3478			
90.000			-.3382	-.3995	-.4392	-.5209	-.6901
135.000				-.3635	-.4176	-.6416	.2855
180.000			-.3283	-.3534	-.3585	-.4402	-.6751
225.000						-.7330	.2451
270.000		-.3198	-.3139	-.3135		-.6294	
315.000				-.3251	-.3335	-.4306	-.5303

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H70) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.897 BETA (1) = -.041 MACH = .89150 RN/L = 4.1731 PO = 2102.0 P = 1254.3

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -3.784 -3.783 -3.4044 -3.4155 -3.4457 -3.7318
 45.000 -4.327
 90.000 -3.843 -3.4317 -3.4654 -3.5758 -3.8273
 135.000 -3.4031 -3.4591 -3.6195 .2625
 180.000 -3.3662 -3.3811 -3.3783 -3.4652 -3.6363
 225.000 -3.7221 .2591
 270.000 -3.3743 -3.3811 -3.3921 -3.6414
 315.000 -3.4180 -3.4717 -3.6348 -3.4545

ALPHA (2) = -.383 BETA (1) = -4.063 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -3.3849 -3.3714 -3.3985 -3.4037 -3.4315 -3.7193
 45.000 -4.189
 90.000 -3.3810 -3.4505 -3.5057 -3.5507 -3.8374
 135.000 -3.3834 -3.4227 -3.6830 .4669
 180.000 -3.3717 -3.3971 -3.4058 -3.5147 -3.8466
 225.000 -3.6859 .1334
 270.000 -3.3893 -3.3894 -3.4039 -3.6280
 315.000 -3.4404 -3.5254 -3.6564 -3.4330

ALPHA (2) = -.357 BETA (2) = -.047 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -3.3564 -3.3510 -3.3931 -3.3877 -3.4600 -3.6951
 45.000 -3.4184
 90.000 -3.3801 -3.4199 -3.4613 -3.5461 -3.7804
 135.000 -3.4057 -3.4722 -3.6304 .3602
 180.000 -3.3503 -3.3721 -3.3601 -3.4657 -3.6118
 225.000 -3.6812 .3299

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H70)

ALPHA (2) = -.357 BETA (2) = -.047

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3578	-.3702	-.3692			-.5801	
315.000				-.3857	-.4140	-.6032		-.4209

ALPHA (2) = -.370 BETA (3) = 3.972 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3932		-.3940	-.4031	-.4168	-.4222	-.7260
45.000					-.4451			
90.000				-.3569	-.4004	-.4060	-.5447	-.8428
135.000					-.3966	-.4208	-.5539	.0632
180.000			-.3894	-.4033	-.4372	-.5069	-.7301	
225.000						-.7464		.3248
270.000		-.3915	-.3748	-.3844			-.5282	
315.000				-.3924	-.4300	-.5440		-.4476

ALPHA (3) = 4.020 BETA (1) = -.041 MACH = .89260 RN/L = 4.1823 PO = 2101.3 P = 1252.4

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3629		-.3523	-.3882	-.3988	-.4449	-.7010
45.000					-.3939			
90.000				-.3687	-.3961	-.4353	-.5595	-.8096
135.000					-.4100	-.4983	-.6524	.4175
180.000			-.3442	-.3700	-.3638	-.4576	-.6240	
225.000						-.6605		.3670
270.000		-.3652	-.3654	-.3717			-.4771	
315.000				-.3789	-.4000	-.5467		-.4296

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H71) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .00 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = -.066 MACH = 1.0977 RN/L = 4.3743 PO = 2107.0 P = 989.57

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4218	-.4248	-.4829	-.5313	-.6848	-.3343	
45.000			-.4925				
90.000		-.4588	-.4503	-.4591	-.4715	-.4936	
135.000			-.4683	-.4914	-.6178		.3547
180.000		-.4412	-.4710	-.5247	-.5842	-.7948	
225.000					-.6374		.3372
270.000	-.4377	-.4545	-.4623			-.4804	
315.000			-.5060	-.5412	-.6778		-.0652

ALPHA (2) = -.545 BETA (1) = -4.072 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4751	-.5009	-.5135	-.5353	-.6530	-.4066	
45.000			-.5644				
90.000		-.5081	-.5277	-.5421	-.5708	-.8365	
135.000			-.5425	-.5816	-.7653		.7585
180.000		-.4844	-.4932	-.5135	-.6477	-.8559	
225.000					-.6353		.2915
270.000	-.4910	-.5065	-.5249			-.5544	
315.000			-.5657	-.5938	-.7440		-.0805

ALPHA (2) = -.667 BETA (2) = -.059 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4161	-.4359	-.4693	-.5073	-.6802	-.3769	
45.000			-.4814				
90.000		-.4515	-.4887	-.4955	-.6106	-.6830	
135.000			-.4657	-.4941	-.6458		.4758
180.000		-.4562	-.4802	-.5550	-.6121	-.8661	
225.000					-.6505		.4619

ARC11-023IA80 OTS(SRB=N ORB=N)

ET BASE

(RE4H71)

ALPHA (2) = -.667 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000 -.4331 -.4477 -.4902 -.6290

315.000 -.4668 -.4825 -.6171 -.0840

ALPHA (2) = -.519 BETA (3) = 3.953 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.4530 -.4652 -.4796 -.4964 -.6094 -.3772

45.000 -.4532 -.4814 -.4855 -.5174 -.5212

90.000 -.4666 -.4804 -.5147 -.5212

135.000 -.4548 -.4700 -.5557 -.7489 -.9466 .2519

180.000 -.4599 -.4623 -.4820 -.6480 -.5497

225.000 -.4599 -.4623 -.4820 -.6480 -.5497

270.000 -.4599 -.4623 -.4820 -.6480 -.5497

315.000 -.5505 -.5874 -.7306 -.1348

ALPHA (3) = 3.990 BETA (1) = -.066 MACH = 1.1080 RN/L = 4.3708 PO = 2107.0 P = 977.00

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.5002 -.4994 -.5371 -.5677 -.7322 -.4088

45.000 -.5118 -.5317 -.5419 -.5612 -.8642

90.000 -.5306 -.5714 -.7199 .5843

135.000 -.5436 -.5378 -.5950 -.6536 -.9955

180.000 -.4991 -.5029 -.5415 -.7136 .4454

225.000 -.5851 -.6627 -.8488 -.1702

270.000 -.5851 -.6627 -.8488 -.1702

315.000 -.5851 -.6627 -.8488 -.1702

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H72) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -4.003 BETA (1) = -.066 MACH = 1.2534 RN/L = 4.4018 PO = 2110.5 P = 811.05

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2876	-.2894	-.3468	-.4104	-.4788	-.1369	
45.000			-.3619				
90.000		-.3053	-.3204	-.3151	-.3282	-.4862	
135.000			-.3074	-.3300	-.4383		.4189
180.000		-.2962	-.3433	-.3494	-.3789	-.5462	
225.000					-.4585		.3235
270.000	-.2862	-.2829	-.3185			-.4542	
315.000			-.3439	-.3711	-.4865		-.0107

ALPHA (2) = -.502 BETA (1) = -4.072 MACH = 1.2515 RN/L = 4.3936 PO = 2110.5 P = 813.15

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2815	-.2917	-.3311	-.3632	-.4775	-.1770	
45.000			-.3205				
90.000		-.3124	-.3247	-.3236	-.3372	-.4760	
135.000			-.3284	-.3544	-.4190		.6337
180.000		-.2989	-.3048	-.3199	-.3892	-.4378	
225.000					-.4080		.2537
270.000	-.2712	-.2723	-.3191			-.4970	
315.000			-.3909	-.4049	-.4618		-.0061

ALPHA (2) = -.528 BETA (2) = -.059 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2665	-.2596	-.3162	-.3681	-.4735	-.1521	
45.000			-.3085				
90.000		-.2783	-.2842	-.2816	-.2992	-.4924	
135.000			-.2807	-.3282	-.4478		.4648
180.000		-.3109	-.3333	-.3630	-.3700	-.5366	
225.000					-.4492		.3778

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H72)

ALPHA (2) = -.528 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.2635	-.2607	-.3029			-.5053		
315.000			-.3790	-.4159	-.5241		-.0038	

ALPHA (2) = -.538 BETA (3) = 3.953 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.2820	-.2952	-.3265	-.3567	-.4713	-.1856		
45.000			-.3899					
90.000		-.2888	-.3063	-.2983	-.3514	-.5087		
135.000			-.2986	-.3343	-.3991		.1869	
180.000		-.2862	-.3297	-.3697	-.4424	-.6031		
225.000					-.4034		.4603	
270.000	-.2950	-.2894	-.3355			-.4360		
315.000			-.3554	-.4636	-.5474		-.0118	

ALPHA (3) = 3.953 BETA (1) = -.063 MACH = 1.2505 RN/L = 4.4051 PO = 2110.5 P = 814.22

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.2714	-.2620	-.3102	-.3284	-.4393	-.1786		
45.000			-.3106					
90.000		-.2775	-.2872	-.2937	-.3137	-.4692		
135.000			-.2974	-.3115	-.4252		.4720	
180.000		-.3209	-.3308	-.3692	-.3771	-.5593		
225.000					-.4129		.3874	
270.000	-.2684	-.2666	-.3046			-.4052		
315.000			-.3276	-.4774	-.5505		-.0106	

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H73) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -.522 BETA (1) = -4.072 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2218	-.2084	-.2258	-.2448	-.3205	-.1605	
45.000			-.2415				
90.000		-.2672	-.2583	-.2586	-.2592	-.3503	
135.000			-.3305	-.3444	-.2710		.5592
180.000		-.2429	-.2440	-.2539	-.2930	-.3240	
225.000					-.3090		.2352
270.000	-.2139	-.2183	-.2646			-.3369	
315.000			-.2545	-.3017	-.3940		-.0409

ALPHA (1) = -.502 BETA (2) = -.059 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2111	-.1854	-.2122	-.2311	-.3176	-.1734	
45.000			-.2221				
90.000		-.2273	-.2307	-.2266	-.2299	-.3939	
135.000			-.2556	-.2923	-.3535		.5183
180.000		-.2443	-.2625	-.3319	-.3286	-.4333	
225.000					-.3394		.3509
270.000	-.2118	-.2143	-.2520			-.3968	
315.000			-.2194	-.2699	-.3722		-.0385

ALPHA (1) = -.535 BETA (3) = 3.953 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2198	-.2242	-.2425	-.2530	-.3287	-.1620	
45.000			-.2519				
90.000		-.2237	-.2265	-.2265	-.2268	-.3473	
135.000			-.2295	-.2522	-.3015		.2084
180.000		-.2172	-.2540	-.3093	-.3383	-.4790	
225.000					-.2921		.4365

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H73)

ALPHA (1) = -.535 BETA (3) = 3.953

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000 -.2401 -.2351 -.2695 -.3679
315.000 -.2241 -.2481 -.3716 -.0407

ALPHA (2) = .000 BETA (1) = -.063 MACH = 1.4118 RN/L = 4.3069 PO = 2111.9 P = 652.69

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.2077 -.1791 -.2091 -.2293 -.3158 -.1701
45.000 -.2212
90.000 -.2275 -.2302 -.2258 -.2304 -.3993
135.000 -.2585 -.2892 -.3467 .5168
180.000 -.2403 -.2567 -.3342 -.3163 -.4239
225.000 -.3587 .3580
270.000 -.2091 -.2132 -.2485 -.3904
315.000 -.2122 -.2587 -.3759 -.0368

ALPHA (3) = .020 BETA (1) = -.063 MACH = 1.4046 RN/L = 4.3270 PO = 2113.3 P = 659.80

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.2131 -.1828 -.2117 -.2332 -.3233 -.1732
45.000 -.2266
90.000 -.2309 -.2361 -.2304 -.2328 -.3970
135.000 -.2589 -.2934 -.3511 .5132
180.000 -.2401 -.2619 -.3249 -.3190 -.4433
225.000 -.3362 .3558
270.000 -.2127 -.2184 -.2538 -.3991
315.000 -.2143 -.2616 -.3770 -.0404

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) ET BASE

(RE4H74) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.950 BETA (1) = -.009 MACH = .60200 RN/L = 3.5046 PO = 2121.1 P = 1660.3

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3182		-.2567	-.2682	-.3166	-.6540	-.8121	
45.000				-.3260				
90.000			-.3274	-.3676	-.3868	-.5574	-.7455	
135.000				-.3348	-.3217	-.5837		.2318
180.000			-.3054	-.3335	-.3503	-.4230	-.6550	
225.000						-.6877		.1633
270.000	-.3024	-.2997	-.3210			-.6171		
315.000			-.3139	-.3236	-.4552			-.5368

ALPHA (2) = -.301 BETA (1) = -4.044 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3131		-.2495	-.2701	-.2880	-.6102	-.8515	
45.000				-.3285				
90.000			-.3218	-.4005	-.4515	-.5312	-.7351	
135.000				-.3572	-.3748	-.6342		.3331
180.000			-.3265	-.3454	-.3768	-.4532	-.6540	
225.000						-.6531		.0920
270.000	-.3047	-.2971	-.3106			-.5907		
315.000			-.3045	-.3106	-.4427			-.5775

ALPHA (2) = -.287 BETA (2) = -.006 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2995		-.2403	-.2588	-.2869	-.6171	-.8125	
45.000				-.3372				
90.000			-.3160	-.3640	-.3855	-.5290	-.6958	
135.000				-.3347	-.3868	-.5977		.2617
180.000			-.2989	-.3320	-.3454	-.4257	-.6534	
225.000						-.6813		.2047

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H74)

ALPHA (2) = -.287 BETA (2) = -.006

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2942	-.2919	-.3072			-.6192	
315.000				-.3002	-.3006	-.3961		-.5375

PHI								
270.000		-.2942	-.2919	-.3072			-.6192	
315.000				-.3002	-.3006	-.3961		-.5375

ALPHA (2) = -.317 BETA (3) = 3.988 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3047		-.2585	-.2651	-.2877	-.5801	-.8479	
45.000				-.3044				
90.000			-.3061	-.3249	-.3687	-.5146	-.7046	
135.000				-.3145	-.3354	-.4820		.0750
180.000			-.2859	-.3274	-.3324	-.4451	-.6752	
225.000						-.6946		.2483
270.000	-.2984	-.2950	-.3250				-.6662	
315.000			-.3102	-.3129	-.3969			-.5541

PHI								
.000	-.3047		-.2585	-.2651	-.2877	-.5801	-.8479	
45.000				-.3044				
90.000			-.3061	-.3249	-.3687	-.5146	-.7046	
135.000				-.3145	-.3354	-.4820		.0750
180.000			-.2859	-.3274	-.3324	-.4451	-.6752	
225.000						-.6946		.2483
270.000	-.2984	-.2950	-.3250				-.6662	
315.000			-.3102	-.3129	-.3969			-.5541

ALPHA (3) = 3.947 BETA (1) = -.009 MACH = .60510 RN/L = 3.5081 PO = 2121.8 P = 1655.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3031		-.2327	-.2489	-.2814	-.6204	-.8370	
45.000				-.3146				
90.000			-.2975	-.3579	-.4081	-.4852	-.6488	
135.000				-.3314	-.3803	-.6026		.3024
180.000			-.2918	-.3250	-.3407	-.4232	-.6458	
225.000						-.6826		.2629
270.000	-.2888	-.2821	-.2928				-.5917	
315.000			-.2965	-.3116	-.3938			-.4969

PHI								
.000	-.3031		-.2327	-.2489	-.2814	-.6204	-.8370	
45.000				-.3146				
90.000			-.2975	-.3579	-.4081	-.4852	-.6488	
135.000				-.3314	-.3803	-.6026		.3024
180.000			-.2918	-.3250	-.3407	-.4232	-.6458	
225.000						-.6826		.2629
270.000	-.2888	-.2821	-.2928				-.5917	
315.000			-.2965	-.3116	-.3938			-.4969

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE+H75) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-1B = 8.000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.012 MACH = .90260 RN/L = 4.2512 PO = 2122.5 P = 1251.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3398	-.3471	-.3679	-.3749	-.4070	-.7056	
45.000			-.4001				
90.000		-.3453	-.3899	-.4278	-.5363	-.7581	
135.000			-.3532	-.4141	-.5647		.2695
180.000		-.3233	-.3474	-.3478	-.4427	-.5981	
225.000					-.6818		.2625
270.000	-.3443	-.3385	-.3530			-.5971	
315.000			-.3887	-.4396	-.5844		-.4292

ALPHA (2) = -.324 BETA (1) = -4.047 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3543	-.3442	-.3646	-.3752	-.4007	-.6918	
45.000			-.3823				
90.000		-.3508	-.4067	-.4762	-.5091	-.7779	
135.000			-.3505	-.3928	-.6438		.4751
180.000		-.3341	-.3507	-.3981	-.4841	-.7300	
225.000					-.6430		.1558
270.000	-.3579	-.3454	-.3542			-.5760	
315.000			-.3951	-.4707	-.5947		-.4106

ALPHA (2) = -.317 BETA (2) = -.006 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3144	-.3006	-.3536	-.3426	-.4159	-.6658	
45.000			-.3765				
90.000		-.3375	-.3815	-.4264	-.5050	-.7086	
135.000			-.3547	-.4284	-.5950		.3735
180.000		-.3097	-.3249	-.3203	-.4439	-.5829	
225.000					-.6455		.3480

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H75)

ALPHA (2) = -.317 BETA (2) = -.006

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3114	-.3340	-.3253			-.5356	
315.000			-.3501	-.3695	-.5481		-.3947

ALPHA (2) = -.396 BETA (3) = 3.984 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3425		-.3532	-.3705	-.3843	-.4134	-.6790
45.000				-.4136			
90.000			-.3347	-.3552	-.3691	-.5010	-.7864
135.000				-.3590	-.3763	-.5239	.0870
180.000			-.3600	-.3638	-.3628	-.4813	-.7329
225.000						-.7262	.3452
270.000	-.3399	-.3456	-.3448			-.4915	
315.000			-.3683	-.3885	-.5143		-.4066

ALPHA (3) = 4.076 BETA (1) = -.012 MACH = .90480 RN/L = 4.2388 PO = 2121.1 P = 1247.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3193		-.3140	-.3436	-.3531	-.4039	-.6714
45.000				-.3514			
90.000			-.3285	-.3567	-.4074	-.5118	-.7322
135.000				-.3713	-.4551	-.6173	.4346
180.000			-.3089	-.3234	-.3293	-.4325	-.5981
225.000						-.6191	.3864
270.000	-.3225	-.3282	-.3269			-.4439	
315.000			-.3299	-.3561	-.4769		-.4000

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H76) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-18 = 8.000 ELV-08 = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.934 BETA (1) = .009 MACH = 1.1011 RN/L = 4.4175 PO = 2123.9 P = 993.44

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3692	-.3843	-.4415	-.4870	-.6326	-.2942	
45.000			-.4371				
90.000		-.4309	-.4493	-.4484	-.4470		
135.000			-.4044	-.4261	-.5373		.3109
180.000		-.3840	-.3876	-.3840	-.4849	-.6755	
225.000					-.5472		.3012
270.000	-.4050	-.4235	-.4256		-.4378		
315.000			-.4571	-.4814	-.6076		-.0754

ALPHA (2) = -.238 BETA (1) = -3.994 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4003	-.4303	-.4471	-.4670	-.5833	-.3275	
45.000			-.4733				
90.000		-.4426	-.4587	-.4722	-.4880	-.6680	
135.000			-.4527	-.4914	-.6402		.5913
180.000		-.4078	-.4082	-.4282	-.5240	-.6968	
225.000					-.5154		.2415
270.000	-.4158	-.4354	-.4604		-.4490		
315.000			-.4741	-.4948	-.6127		-.0682

ALPHA (2) = -.307 BETA (2) = .009 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3377	-.3687	-.3899	-.4289	-.5761	-.3088	
45.000			-.3985				
90.000		-.3931	-.4148	-.4335	-.4977	-.5770	
135.000			-.3751	-.4028	-.5175		.3997
180.000		-.3442	-.3544	-.3529	-.4483	-.5640	
225.000					-.5533		.4058

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H76)

ALPHA (2) = -.307 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3571	-.3776	-.3877			-.5571	
315.000			-.4055	-.4151	-.5393		-.0796

ALPHA (2) = -.271 BETA (3) = 4.034 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3976	-.4082	-.4214	-.4361	-.5439	-.3207	
45.000			-.4266				
90.000		-.4010	-.4172	-.4266	-.4351	-.4394	
135.000			-.4148	-.4464	-.5030		.2184
180.000		-.3903	-.3988	-.4028	-.5197	-.8367	
225.000					-.5424		.4613
270.000	-.4026	-.4030	-.4148			-.6276	
315.000			-.4761	-.4974	-.6201		-.1007

ALPHA (3) = 4.026 BETA (1) = .012 MACH = 1.1056 RN/L = 4.4135 PO = 2121.8 P = 986.83

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3905	-.4113	-.4272	-.4525	-.5868	-.3203	
45.000			-.4578				
90.000		-.4336	-.4468	-.4607	-.4683	-.6880	
135.000			-.4309	-.4544	-.5654		.4455
180.000		-.3947	-.3956	-.4117	-.5203	-.7531	
225.000					-.5506		.3466
270.000	-.3940	-.4140	-.4265			-.6534	
315.000			-.4561	-.4801	-.6282		-.1314

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H77) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.981 BETA (1) = .012 MACH = 1.2507 RN/L = 4.4817 PO = 2123.2 P = 818.92

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3167	-.3308	-.3886	-.4586	-.4937	-.1500	
45.000			-.3928				
90.000		-.3642	-.3869	-.3869	-.3957	-.4929	
135.000			-.3399	-.3580	-.4572		.4423
180.000		-.3102	-.3178	-.3112	-.3850	-.5406	
225.000					-.4451		.3456
270.000	-.3293	-.3360	-.3786			-.4888	
315.000			-.3753	-.4014	-.5066		-.0296

ALPHA (2) = -.238 BETA (1) = -3.994 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3223	-.3413	-.3845	-.4217	-.5263	-.1816	
45.000			-.4095				
90.000		-.3676	-.3792	-.3921	-.3916	-.4819	
135.000			-.3660	-.3969	-.4432		.6348
180.000		-.3238	-.3214	-.3411	-.4202	-.5142	
225.000					-.3911		.2794
270.000	-.3185	-.3257	-.3927			-.5104	
315.000			-.4196	-.4402	-.5094		-.0119

ALPHA (2) = -.258 BETA (2) = .009 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2975	-.3052	-.3636	-.4224	-.4895	-.1489	
45.000			-.4209				
90.000		-.3353	-.3461	-.3522	-.3539	-.4853	
135.000			-.3282	-.3483	-.4393		.4985
180.000		-.3042	-.3086	-.2883	-.3720	-.5301	
225.000					-.4447		.3990

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H77)

ALPHA (2) = -.258 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/R0D	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000	-.3040	-.3086	-.3599				-.5129	
315.000			-.3912	-.4082	-.5265			-.0094

ALPHA (2) = -.281 BETA (3) = 4.031 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/R0D	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3226	-.3384	-.3685	-.4068	-.5121	-.1831		
45.000			-.4355					
90.000		-.3347	-.3313	-.3296	-.3498	-.5063		
135.000			-.3377	-.3668	-.4291		.2039	
180.000		-.3139	-.3219	-.3303	-.4134	-.6439		
225.000					-.4010		.4740	
270.000	-.3374	-.3353	-.3841			-.4688		
315.000			-.4666	-.4975	-.5564		-.0120	

ALPHA (3) = 3.953 BETA (1) = .016 MACH = 1.2486 RN/L = 4.4578 PO = 2122.5 P = 820.98

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/R0D	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3080	-.3044	-.3506	-.3731	-.4764	-.1788		
45.000			-.4078					
90.000		-.3230	-.3327	-.3379	-.3571	-.4845		
135.000			-.3169	-.3390	-.4034		.4731	
180.000		-.3376	-.3262	-.3273	-.4106	-.5693		
225.000					-.4045		.3872	
270.000	-.3059	-.3091	-.3535			-.4530		
315.000			-.4224	-.5092	-.5534		-.0154	

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RC4H78) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-CB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.980 BETA (1) = -.066 MACH = 1.4100 RN/L = 4.3522 PO = 2122.5 P = 657.63

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2936 -.2914 -.3094 -.3259 -.3766 -.1867
 45.000 -.3302
 90.000 -.3056 -.3033 -.3009 -.3040 -.3806
 135.000 -.3319 -.3592 -.4102 .4590
 180.000 -.3161 -.3158 -.3047 -.4032 -.4255
 225.000 -.3921 .3430
 270.000 -.2975 -.3014 -.3121 -.3828
 315.000 -.3101 -.3533 -.4110 -.0667

ALPHA (2) = -.238 BETA (1) = -4.072 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2843 -.2813 -.3007 -.3230 -.3944 -.1646
 45.000 -.3132
 90.000 -.3410 -.3335 -.3309 -.3253 -.3498
 135.000 -.3735 -.3639 -.2646 .5622
 180.000 -.2827 -.2812 -.3033 -.3426 -.3599
 225.000 -.3398 .2592
 270.000 -.2605 -.2804 -.2904 -.3613
 315.000 -.3091 -.3307 -.4067 -.0439

ALPHA (2) = -.226 BETA (2) = -.060 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2606 -.2553 -.2789 -.3060 -.3718 -.1736
 45.000 -.2759
 90.000 -.2961 -.2995 -.2899 -.2858 -.3857
 135.000 -.3163 -.3300 -.3649 .5423
 180.000 -.2680 -.2600 -.2362 -.3070 -.4225
 225.000 -.3279 .3840

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H78)

ALPHA (2) = -.228 BETA (2) = -.063

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP							
R/ROD		.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI									
270.000			-.2654	-.2711	-.3204			-.4011	
315.000					-.2850	-.3166	-.3856		-.0421

ALPHA (2) = -.261 BETA (3) = 3.953 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 650.25

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP							
R/ROD		.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI									
.000			-.2758	-.2767	-.2970	-.3131	-.3838	-.1643	
45.000					-.3273				
90.000				-.2812	-.2806	-.2794	-.2853	-.3498	
135.000					-.2818	-.3028	-.3466		.2158
180.000				-.2684	-.2753	-.2981	-.3447	-.5141	
225.000							-.2785		.4416
270.000			-.2944	-.2915	-.3284			-.3788	
315.000				-.2961	-.3509	-.3958			-.0451

ALPHA (3) = 3.920 BETA (1) = -.066 MACH = 1.4043 RN/L = 4.3377 PO = 2123.2 P = 663.16

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP							
R/ROD		.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI									
.000			-.2459	-.2392	-.2894	-.3259	-.3868	-.0713	
45.000					-.2837				
90.000				-.2438	-.3060	-.3207	-.3724	-.4067	
135.000					-.3405	-.3310	-.3434		.5266
180.000				-.2627	-.2462	-.2220	-.2822	-.4240	
225.000							-.3236		.4069
270.000			-.2422	-.2416	-.2762			-.3988	
315.000					-.2677	-.3505	-.3621		.0194

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H79) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 RREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -4.105 BETA (1) = -.006 MACH = .59090 RN/L = 3.4170 PO = 2104.1 P = 1661.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.5350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3597		-.2791	-.2893	-.3603	-.6986	-.8497	
45.000			-.3500	-.3500				
90.000			-.3500	-.3997	-.4149	-.5996	-.7927	
135.000				-.3584	-.4121	-.6146		.2154
180.000			-.3354	-.3526	-.3644	-.4333	-.6814	
225.000						-.7235		.1413
270.000		-.3353	-.3272	-.3491			-.6616	
315.000				-.3366	-.3507	-.4900		-.5637

ALPHA (2) = -.383 BETA (1) = -4.047 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3423		-.2803	-.2976	-.3233	-.6517	-.8820	
45.000			-.3557	-.3557				
90.000			-.3454	-.4319	-.4820	-.5535	-.7827	
135.000				-.3744	-.3947	-.6534		.3231
180.000			-.3454	-.3565	-.3919	-.4393	-.7003	
225.000						-.6718		.0909
270.000		-.3323	-.3208	-.3315			-.6310	
315.000				-.3281	-.3430	-.4866		-.5939

ALPHA (2) = -.380 BETA (2) = -.009 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3365		-.2772	-.2870	-.3346	-.6724	-.8540	
45.000			-.3487	-.3487				
90.000			-.3522	-.4076	-.4206	-.5582	-.7558	
135.000				-.3629	-.4168	-.6357		.2456
180.000			-.3391	-.3577	-.3566	-.4485	-.6825	
225.000						-.7277		.1865

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ARC11-0231A80 OTS:SRB=N ORB=N 1

ET BASE

(RE4H79)

ALPHA (2) = -.380 BETA (2) = -.009

SECTION (1)	EXTERNAL TANK BASE	DEPENDENT VARIABLE CP						
P/ROD	.0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000							

PHI								
270.000	-.3245	-.3235	-.3398				-.6654	
315.000			-.3343	-.3349	-.4366			-.5751

ALPHA (2) = -.499 BETA (3) = 3.981 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1)	EXTERNAL TANK BASE	DEPENDENT VARIABLE CP						
P/ROD	.0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000							

PHI								
.000	-.3324		-.2780	-.2882	-.3082	-.6303	-.8818	
45.000				-.3322				
90.000			-.3308	-.3600	-.3803	-.5390	-.7318	
135.000				-.3401	-.3658	-.5116		.0616
180.000			-.3137	-.3457	-.3404	-.4413	-.6822	
225.000						-.7264		.2353
270.000	-.3160	-.3150	-.3454				-.6924	
315.000			-.3325	-.3343	-.4361			-.5790

ALPHA (3) = 3.950 BETA (1) = -.012 MACH = .59700 RN/L = 3.4428 PO = 2104.1 P = 1653.6

SECTION (1)	EXTERNAL TANK BASE	DEPENDENT VARIABLE CP						
P/ROD	.0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000							

PHI								
.000	-.3324		-.2698	-.2855	-.3252	-.6826	-.8808	
45.000				-.3442				
90.000			-.3351	-.4056	-.4415	-.5231	-.6968	
135.000				-.3649	-.4191	-.6402		.2848
180.000			-.3306	-.3573	-.3644	-.4399	-.6823	
225.000						-.7342		.2418
270.000	-.3220	-.3137	-.3214				-.6291	
315.000			-.3331	-.3396	-.4387			-.5384

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H80) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.897 BETA (1) = -.009 MACH = .89540 RN/L = 4.1815 PO = 2097.1 P = 1244.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3751	-.3889	-.4065	-.4162	-.4487	-.7191	
45.000			-.4317				
90.000		-.3806	-.4199	-.4647	-.5706	-.8270	
135.000			-.3951	-.4553	-.6104		.2661
180.000		-.3617	-.3784	-.3973	-.4608	-.6341	
225.000					-.7187		.2597
270.000	-.3842	-.3742	-.3904			-.6370	
315.000			-.4276	-.4852	-.6397		-.4455

ALPHA (2) = -.353 BETA (1) = -.050 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3867	-.3788	-.4044	-.4144	-.4489	-.7006	
45.000			-.4224				
90.000		-.3930	-.4323	-.5044	-.5508	-.8692	
135.000			-.3914	-.4191	-.6673		.4726
180.000		-.3757	-.3835	-.4053	-.5282	-.8632	
225.000					-.6950		.1443
270.000	-.3873	-.3782	-.4004			-.6220	
315.000			-.4574	-.5350	-.6577		-.4188

ALPHA (2) = -.363 BETA (2) = -.009 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3608	-.3514	-.4016	-.3954	-.4712	-.6835	
45.000			-.4253				
90.000		-.3804	-.4158	-.4550	-.5521	-.8047	
135.000			-.3970	-.4778	-.6259		.3500
180.000		-.3525	-.3705	-.3704	-.4637	-.6202	
225.000					-.6846		.3321

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A60 OTS(SRB=N ORB=N)

ET BASE

(RE4H80)

ALPHA (2) = -.363 BETA (2) = -.009

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

P/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3638	-.3710	-.3760			-.5943	
315.000			-.3958	-.4209	-.6424		-.4125

ALPHA (2) = -.519 BETA (3) = 3.981 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

P/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3785		-.3774	-.4061	-.4080	-.4475	-.6828
45.000				-.4486			
90.000			-.3623	-.3978	-.3922	-.5322	-.8125
135.000				-.3912	-.4068	-.5546	.0782
180.000			-.4006	-.3940	-.4174	-.5138	-.7408
225.000						-.7462	.3396
270.000	-.3735	-.3778	-.3749			-.5189	
315.000			-.3862	-.4249	-.6018		-.4163

ALPHA (3) = 3.980 BETA (1) = -.012 MACH = .89790 RN/L = 4.1840 PO = 2097.8 P = 1243.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

P/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3649		-.3699	-.3849	-.4023	-.4503	-.6888
45.000				-.3930			
90.000			-.3682	-.3879	-.4376	-.5549	-.8140
135.000				-.4078	-.5024	-.6439	.4238
180.000			-.3465	-.3719	-.3663	-.4582	-.6239
225.000						-.6624	.3711
270.000	-.3661	-.3631	-.3733			-.4869	
315.000			-.3788	-.4011	-.5354		-.4215

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OF POOR QUALITY

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H81) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = .012 MACH = 1.0996 RN/L = 4.3760 PO = 2105.5 P = 986.57

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3736		-.3782	-.4260	-.4768	-.6128	-.2972	
45.000				-.4344				
90.000			-.4041	-.4069	-.4101	-.4181	-.4504	
135.000				-.4120	-.4346	-.5423		.3030
180.000			-.3858	-.4231	-.4695	-.5156	-.7013	
225.000						-.5637		.3010
270.000	-.3892	-.3957	-.4120				-.4457	
315.000			-.4401	-.4679	-.5901			-.0750

ALPHA (2) = -.396 BETA (1) = -3.994 MACH = 1.1021 RN/L = 4.3810 PO = 2105.0 P = 983.89

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3813		-.4070	-.4195	-.4363	-.5448	-.3308	
45.000				-.4480				
90.000			-.4106	-.4275	-.4434	-.4686	-.6603	
135.000				-.4351	-.4622	-.6097		.5813
180.000			-.3905	-.3867	-.4043	-.5182	-.6707	
225.000						-.5219		.2297
270.000	-.3917	-.4088	-.4241				-.4530	
315.000			-.4530	-.4759	-.5947			-.0658

ALPHA (2) = -.380 BETA (2) = .009 MACH = 1.1021 RN/L = 4.3810 PO = 2106.0 P = 983.89

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3356		-.3564	-.3862	-.4196	-.5721	-.3100	
45.000				-.4018				
90.000			-.3566	-.3738	-.3878	-.4806	-.5589	
135.000				-.3669	-.3986	-.5307		.3988
180.000			-.3585	-.3922	-.4505	-.4922	-.6900	
225.000						-.5540		.3913

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(REFH81)

ALPHA (2) = -.380 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3515	-.3545	-.3733			-.4933	
315.000			-.4285	-.4427	-.5571		-.0804

ALPHA (2) = -.393 BETA (3) = 4.031 MACH = 1.1021 RN/L = 4.3810 PO = 2106.0 P = 983.89

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3937		-.4073	-.4206	-.4305	-.5233	-.3343
45.000				-.4257			
90.000			-.4057	-.4160	-.4293	-.4438	-.4589
135.000				-.4187	-.4461	-.5106	.2041
180.000			-.4014	-.4101	-.4853	-.6421	-.8213
225.000					-.5517		.4500
270.000	-.4007	-.4040	-.4177			-.6216	
315.000			-.4800	-.5033	-.6118		-.1168

ALPHA (3) = 3.894 BETA (1) = .012 MACH = 1.1031 RN/L = 4.3843 PO = 2106.2 P = 982.65

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3892		-.3959	-.4182	-.4491	-.5735	-.3241
45.000				-.4487			
90.000			-.4003	-.4112	-.4212	-.4359	-.6221
135.000				-.4158	-.4506	-.5500	.4436
180.000			-.4097	-.4064	-.4731	-.5192	-.7901
225.000					-.5573		.3421
270.000	-.3914	-.3946	-.4250			-.5540	
315.000			-.4613	-.4931	-.6370		-.1339

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(REHHS2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-09 = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.957 BETA (1) = .016 MACH = 1.2439 RN/L = 4.4220 PO = 2109.1 P = 820.87

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2931	-.2948	-.3506	-.4146	-.4954	-.1520	
45.000			-.3695				
90.000		-.3053	-.3131	-.3149	-.3252	-.5013	
135.000			-.3027	-.3382	-.4515		.3947
180.000		-.3106	-.3596	-.3664	-.3985	-.5537	
225.000					-.4722		.3211
270.000	-.2916	-.2879	-.3237			-.4985	
315.000			-.3677	-.3945	-.5118		-.0369

ALPHA (2) = -.395 BETA (1) = -3.994 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2746	-.2654	-.3220	-.3575	-.4767	-.1798	
45.000			-.3131				
90.000		-.3050	-.3188	-.3230	-.3339	-.4821	
135.000			-.3179	-.3470	-.4103		.6250
180.000		-.2915	-.2975	-.3137	-.4179	-.4299	
225.000					-.4115		.2495
270.000	-.2625	-.2659	-.3134			-.4981	
315.000			-.3775	-.4023	-.4794		-.0113

ALPHA (2) = -.396 BETA (2) = .009 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2627	-.2600	-.3141	-.3703	-.4740	-.1459	
45.000			-.3332				
90.000		-.2720	-.2794	-.2772	-.2929	-.4963	
135.000			-.2823	-.3340	-.4507		.4742
180.000		-.3049	-.3360	-.3592	-.3699	-.5074	
225.000					-.4451		.3787

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H82)

ALPHA (2) = -.396 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.2624	-.2579	-.3004			-.5121
315.000				-.3712	-.4209	-.5247	-.0092

ALPHA (2) = -.380 BETA (3) = 4.031 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000	
PHI								
.000		-.2752		-.2672	-.3212	-.3514	-.4686	-.1872
45.000					-.3741			
90.000				-.2919	-.2976	-.2919	-.3115	-.5076
135.000					-.2933	-.3238	-.3958	.1815
180.000				-.2820	-.3258	-.3611	-.4307	-.5928
225.000						-.3951		.4600
270.000		-.2863	-.2861	-.3318			-.4420	
315.000				-.3311	-.4770	-.5441		-.0142

ALPHA (3) = 3.877 BETA (1) = .009 MACH = 1.2502 RN/L = 4.4099 PO = 2109.1 P = 813.99

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000	
PHI								
.000		-.2661		-.2556	-.3036	-.3248	-.4395	-.1774
45.000					-.3289			
90.000				-.2703	-.2822	-.2875	-.3075	-.4726
135.000					-.2852	-.3095	-.4043	.4784
180.000				-.3067	-.3302	-.3603	-.3696	-.5358
225.000						-.4168		.3867
270.000		-.2564	-.2631	-.3017			-.4064	
315.000				-.3040	-.4613	-.5448		-.0129

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4HB3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-C8 = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.983 BETA (1) = -.066 MACH = 1.4086 RN/L = 4.3187 PO = 2118.3 P = 657.67

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2233 -.2096 -.2273 -.2423 -.3165 -.1846
 45.000 -.2333
 90.000 -.2255 -.2498 -.2479 -.2298 -.3960
 135.000 -.2475 -.2984 -.3640 .4159
 180.000 -.2519 -.2748 -.3227 -.3291 -.4109
 225.000 -.3813 .3131
 270.000 -.2261 -.2314 -.2595 -.3947
 315.000 -.2624 -.3192 -.3919 -.0650

ALPHA (2) = -.380 BETA (1) = -.4059 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2250 -.2084 -.2280 -.2448 -.3311 -.1659
 45.000 -.2426
 90.000 -.2663 -.2618 -.2608 -.2616 -.3516
 135.000 -.3275 -.3340 -.2719 .5606
 180.000 -.2425 -.2451 -.2566 -.2934 -.3168
 225.000 -.3182 .2345
 270.000 -.2164 -.2195 -.2650 -.3369
 315.000 -.2524 -.3014 -.3954 -.0456

ALPHA (2) = -.380 BETA (2) = -.059 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.2116 -.1892 -.2176 -.2366 -.3229 -.1746
 45.000 -.2270
 90.000 -.2276 -.2313 -.2262 -.2309 -.3930
 135.000 -.2446 -.2867 -.3634 .5240
 180.000 -.2430 -.2713 -.3368 -.3085 -.4081
 225.000 -.3477 .3547

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H83)

ALPHA (2) = -.380 BETA (2) = -.059

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2118	-.2172	-.2524			-.3994	
315.000		-.2214	-.2655	-.3734			-.0450

ALPHA (2) = -.409 BETA (3) = 3.953 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2191		-.2225	-.2415	-.2527	-.3371	-.1655
45.000			-.2539				
90.000			-.2208	-.2255	-.2222	-.2281	-.3490
135.000				-.2309	-.2578	-.3063	.1911
180.000			-.2166	-.2558	-.3033	-.3407	-.4583
225.000						-.2916	.4356
270.000	-.2366	-.2340	-.2673			-.3705	
315.000			-.2228	-.2417	-.3679		-.0451

ALPHA (3) = 3.828 BETA (1) = .000 MACH = 1.4102 RN/L = 4.2670 PO = 2116.9 P = 655.67

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2018		-.1713	-.2434	-.2676	-.3656	-.0682
45.000				-.2146			
90.000			-.2005	-.2202	-.2284	-.2381	-.3978
135.000				-.2512	-.2734	-.3390	.5116
180.000			-.2258	-.2493	-.3101	-.2597	-.3887
225.000						-.3107	.3975
270.000	-.1929	-.2072	-.2213			-.3736	
315.000			-.2011	-.2634	-.3148		.0140

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HB4) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = 2.000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.953 BETA (1) = -.044 MACH = .59570 RN/L = 3.4174 PO = 2114.7 P = 1663.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R00	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3555		-.2907	-.2913	-.3552	-.6599	-.8540	
45.000				-.3453				
90.000			-.3356	-.4073	-.4254	-.5802	-.7957	
135.000				-.3598	-.4144	-.6091		.2133
180.000			-.3279	-.3612	-.3862	-.4352	-.6871	
225.000						-.7144		.1436
270.000		-.3459	-.3199	-.3521			-.6731	
315.000				-.3504	-.3624	-.4787		-.5736

ALPHA (2) = -.284 BETA (1) = -4.063 MACH = .59677 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R00	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3208		-.2518	-.2700	-.2933	-.5075	-.8532	
45.000				-.3287				
90.000			-.3188	-.4087	-.4545	-.5252	-.7355	
135.000				-.3531	-.3797	-.6268		.3336
180.000			-.3181	-.3462	-.3756	-.4432	-.6645	
225.000						-.6432		.0943
270.000		-.3017	-.2965	-.3136			-.5720	
315.000				-.3073	-.3228	-.4558		-.5719

ALPHA (2) = -.291 BETA (2) = -.047 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R00	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2876		-.2351	-.2523	-.2877	-.6237	-.8013	
45.000				-.3068				
90.000			-.3095	-.3596	-.3803	-.5292	-.6929	
135.000				-.3255	-.3660	-.5833		.2634
180.000			-.2962	-.3204	-.3333	-.4225	-.6407	
225.000						-.6761		.2093

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H84)

ALPHA (2) = -.291 BETA (2) = -.047

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2825	-.2789	-.3034			-.6095	
315.000			-.2911	-.2898	-.3879		-.5292

ALPHA (2) = -.320 BETA (3) = 3.969 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3181		-.2706	-.2703	-.2964	-.5938	-.8577
45.000				-.3102			
90.000			-.3065	-.3410	-.3596	-.5102	-.7105
135.000				-.3181	-.3517	-.4790	.0720
180.000			-.2928	-.3308	-.3459	-.4456	-.6798
225.000						-.7077	.2454
270.000	-.3120	-.2955	-.3325			-.6880	
315.000			-.3191	-.3270	-.4182		-.5628

ALPHA (3) = 3.973 BETA (1) = -.044 MACH = .59840 RN/L = 3.4294 PO = 2112.6 P = 1658.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2956		-.2332	-.2464	-.2814	-.6261	-.8221
45.000				-.3094			
90.000			-.2974	-.3558	-.4038	-.4759	-.6367
135.000				-.3215	-.3760	-.5969	.3006
180.000			-.2929	-.3201	-.3383	-.4161	-.6448
225.000						-.6846	.2654
270.000	-.2813	-.2776	-.2814			-.5745	
315.000			-.2933	-.3006	-.3850		-.4921

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OF POOR QUALITY

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H85) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 2.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.937 BETA (1) = -.050 MACH = .90250 RN/L = 4.2680 PO = 2118.3 P = 1249.1

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.3330		-3.350	-3.3650	-3.3728	-3.4039	-3.7053	
45.000				-3.3953				
90.000			-3.410	-3.3843	-3.4225	-3.5338	-3.7414	
135.000				-3.3558	-3.4102	-3.5638		.2704
180.000			-3.3183	-3.3384	-3.3457	-3.4361	-3.5961	
225.000						-3.6758		.2677
270.000		-3.3354	-3.3380	-3.3481			-3.5960	
315.000				-3.3808	-3.4197	-3.5808		-3.4308

ALPHA (2) = -.301 BETA (1) = -.4066 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.453		-3.361	-3.3604	-3.3687	-3.4029	-3.6960	
45.000				-3.3781				
90.000			-3.3497	-3.4259	-3.4653	-3.5051	-3.7678	
135.000				-3.3531	-3.3891	-3.6401		.4737
180.000			-3.3346	-3.3598	-3.3923	-3.4905	-3.6927	
225.000						-3.6469		.1563
270.000		-3.3461	-3.3404	-3.3533			-3.5735	
315.000				-3.3925	-3.4671	-3.5825		-3.4146

ALPHA (2) = -.304 BETA (2) = -.047 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.3251		-3.3217	-3.3501	-3.3594	-3.4080	-3.6764	
45.000				-3.3790				
90.000			-3.3322	-3.3848	-3.4394	-3.4992	-3.7220	
135.000				-3.3623	-3.4423	-3.5945		.3633
180.000			-3.3093	-3.3330	-3.3391	-3.4478	-3.6051	
225.000						-3.6500		.3420

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4485)

ALPHA (2) = -.304 BETA (2) = -.047

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
270.000	-.3265	-.3316	-.3406				-.5492	
315.000			-.3576	-.3907	-.5507			-.4042

ALPHA (2) = -.320 BETA (3) = 3.969 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
.000	-.3395		-.3500	-.3711	-.3778	-.4068	-.7007	
45.000				-.4030				
90.000			-.3358	-.3566	-.3737	-.5099	-.7972	
135.000				-.3653	-.3792	-.5184		.0754
180.000			-.3546	-.3616	-.3764	-.4752	-.7108	
225.000						-.7244		.3383
270.000	-.3464	-.3390	-.3406				-.4921	
315.000			-.3519	-.3873	-.4968			-.4258

ALPHA (3) = 3.977 BETA (1) = -.044 MACH = .89910 RN/L = 4.2250 PO = 2114.7 P = 1251.5

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000

PHI								
.000	-.3198		-.3110	-.3413	-.3532	-.3939	-.6849	
45.000				-.3544				
90.000			-.3236	-.3616	-.4073	-.5017	-.7114	
135.000				-.3668	-.4582	-.6091		.4272
180.000			-.2990	-.3290	-.3321	-.4389	-.5957	
225.000						-.6268		.3825
270.000	-.3225	-.3212	-.3292				-.4479	
315.000			-.3304	-.3542	-.4619			-.4114

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TABULATED SOURCE DATA - 1A80
ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

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(RE4486) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.013 BETA (1) = .016 MACH = 1.1058 RN/L = 4.4715 PO = 2118.3 P = 985.01

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9990 1.0000

PHI
.000 - .3615 - .3759 - .4292 - .4884 - .6225 - .2857
45.000 - .4271 - .4391
90.000 - .4167 - .4431 - .4430 - .4424 - .4391
135.000 - .3958 - .4183 - .5288 .3177
180.000 - .3702 - .3797 - .3783 - .4723 - .6953
225.000 - .5385 - .4336 .3081
270.000 - .4002 - .4124 - .4215 - .4336
315.000 - .4439 - .4693 - .5997 - .0677

ALPHA (2) = -.304 BETA (1) = -3.991 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9990 1.0000

PHI
.000 - .3972 - .4279 - .4476 - .4637 - .5826 - .3287
45.000 - .4715 - .4685
90.000 - .4394 - .4549 - .4625 - .4832 - .6685
135.000 - .4505 - .4810 - .6347 .5854
180.000 - .4033 - .4062 - .4725 - .5204 - .7074
225.000 - .5131 - .4482 .2397
270.000 - .4134 - .4325 - .4554 - .4482
315.000 - .4634 - .4861 - .6076 - .0683

ALPHA (2) = -.267 BETA (2) = .009 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9990 1.0000

PHI
.000 - .3515 - .3810 - .4019 - .4402 - .5880 - .3129
45.000 - .4024 - .5736
90.000 - .4106 - .4352 - .4482 - .5016 - .5736
135.000 - .3841 - .4133 - .5255 .3868
180.000 - .3545 - .3679 - .3750 - .4715 - .7159
225.000 - .5535 - .3358

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H86)

ALPHA (2) = -.267 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3799	-.3946	-.4133			-.5454	
315.000			-.3987	-.4152	-.5302		-.0754

ALPHA (2) = -.327 BETA (3) = .4.034 MACH = 1.1047

RN/L

= 4.4560

PO

= 2115.9

P

= 985.23

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3955		-.4053	-.4174	-.4323	-.5387	-.3176
45.000				-.4227			
90.000			-.3934	-.4154	-.4259	-.4364	-.4365
135.000				-.4059	-.4430	-.4983	.2160
180.000			-.3873	-.3951	-.3994	-.5150	.0000
225.000						-.5400	.4631
270.000	-.3984	-.3998	-.4134				-.6211
315.000			-.4841	-.5030	-.6118		-.0974

ALPHA (3) = 3.986 BETA (1) = .016 MACH = 1.1038

RN/L

= 4.4466

PO

= 2116.2

= 985.43

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3927		-.4121	-.4314	-.4548	-.5894	-.3221
45.000				-.4585			
90.000			-.4346	-.4517	-.4611	-.4927	-.6886
135.000				-.4309	-.4585	-.5586	.4474
180.000			-.3975	-.3980	-.4193	-.5263	-.7717
225.000						-.5445	.3465
270.000	-.3980	-.4130	-.4322				-.6565
315.000			-.4621	-.4892	-.6304		-.1300

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H87) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = 2.000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.871 BETA (1) = -.044 MACH = .59840 RN/L = 3.4324 PO = 2111.9 P = 1657.8

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9450 .9890 1.0000

PHI

.000	-.3451	-.2789	-.2886	-.3538	-.6942	-.8483	
45.000			-.3524				
90.000		-.3552	-.3953	-.4203	-.5966	-.7815	
135.000			-.3668	-.4087	-.6170		.2211
180.000		-.3380	-.3539	-.3781	-.4319	-.6703	
225.000					-.7165		.1465
270.000	-.3342	-.3273	-.3429			-.6450	
315.000			-.3452	-.3510	-.4874		-.5567

ALPHA (2) = -.350 BETA (1) = -4.066 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9450 .9890 1.0000

PHI

.000	-.3351	-.2737	-.2913	-.3135	-.6498	-.8749	
45.000			-.3505				
90.000		-.3392	-.4249	-.4688	-.5525	-.7591	
135.000			-.3562	-.3855	-.6488		.3276
180.000		-.3433	-.3631	-.3824	-.4325	-.6899	
225.000					-.6618		.0792
270.000	-.3162	-.3133	-.3239			-.6107	
315.000			-.3276	-.3345	-.4643		-.5850

ALPHA (2) = -.380 BETA (2) = -.050 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9450 .9890 1.0000

PHI

.000	-.3303	-.2722	-.2936	-.3334	-.6716	-.8537	
45.000			-.3456				
90.000		-.3440	-.4068	-.4154	-.5693	-.7506	
135.000			-.3655	-.4160	-.6384		.2454
180.000		-.3435	-.3597	-.3758	-.4470	-.6830	
225.000					-.7178		.1861

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SR9=N ORB=N)

ET BASE

(RE4H87)

ALPHA (2) = -.380 BETA (2) = -.050

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.3255	-.3254	-.3420				-.6555	
315.000			-.3350	-.3321	-.4359			-.5674

ALPHA (2) = -.423 BETA (3) = 3.969 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3212		-.2734	-.2855	-.3049	-.6227	-.6657	
45.000				-.3178				
90.000			-.3299	-.3556	-.3674	-.5394	-.7321	
135.000				-.3378	-.3539	-.4931		.0650
180.000			-.3168	-.3372	-.3477	-.4482	-.6730	
225.000						-.7269		.2379
270.000	-.3195	-.3089	-.3359				-.6832	
315.000			-.3272	-.3381	-.4146			-.5612

ALPHA (3) = 3.986 BETA (1) = -.047 MACH = .59740 RN/L = 3.4327 PO = 2111.2 P = 1658.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3357		-.2647	-.2821	-.3195	-.6633	-.8767	
45.000				-.3419				
90.000			-.3352	-.3936	-.4347	-.5206	-.6931	
135.000				-.3685	-.4144	-.6339		.2847
180.000			-.3297	-.3544	-.3585	-.4384	-.6651	
225.000						-.7250		.2438
270.000	-.3184	-.3101	-.3173				-.6168	
315.000			-.3282	-.3372	-.4420			-.5361

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H88) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

CLV-18 = 3.000 ELV-08 = 2.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.963 BETA (1) = -.044 MACH = .89500 RN/L = 4.1900 PO = 2107.0 P = 1252.5

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3732		-.3774	-.4059	-.4150	-.4439	-.7247	
45.000				-.4330				
90.000			-.3827	-.4229	-.4672	-.5654	-.8378	
135.000				-.3921	-.4503	-.6076		.2687
180.000			-.3614	-.3823	-.3929	-.4601	-.6309	
225.000						-.7226		.2603
270.000	-.3748	-.3754	-.3876			-.6378		
315.000			-.4223	-.4719	-.6465		-.4489	

ALPHA (2) = -.383 BETA (1) = -.4065 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3828		-.3748	-.4025	-.4129	-.4442	-.7089	
45.000				-.4190				
90.000			-.3856	-.4257	-.5023	-.5485	-.8548	
135.000				-.3785	-.4239	-.6752		.4689
180.000			-.3701	-.3787	-.4070	-.5237	-.8566	
225.000						-.6911		.1434
270.000	-.3891	-.3931	-.3921			-.6254		
315.000			-.4501	-.5239	-.6575		-.4255	

ALPHA (2) = -.376 BETA (2) = -.047 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3415		-.3443	-.3954	-.3989	-.4680	-.6798	
45.000				-.4205				
90.000			-.3762	-.4130	-.4572	-.5649	-.7787	
135.000				-.4021	-.4620	-.6314		.3591
180.000			-.3590	-.3564	-.3570	-.4636	-.6122	
225.000						-.6855		.3372

ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H88)

ALPHA (2) = -.376 BETA (2) = -.047

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.3497	-.3753	-.3758				-.5751	
315.000			-.3967	-.4132	-.6294			-.4099

ALPHA (2) = -.409 BETA (3) = 3.969 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3622		-.3735	-.3929	-.3914	-.4337	-.6951	
45.000				-.4322				
90.000			-.3606	-.3879	-.3813	-.5293	-.8114	
135.000				-.3801	-.3977	-.5422		.0782
180.000			-.3845	-.3748	-.4078	-.5004	-.7138	
225.000						-.7345		.3390
270.000	-.3586	-.3602	-.3629				-.5013	
315.000			-.3714	-.4142	-.5529			-.4236

ALPHA (3) = 3.940 BETA (1) = -.044 MACH = .89700 RN/L = 4.1933 PO = 2107.0 P = 1249.8

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3672		-.3621	-.3927	-.4035	-.4520	-.6920	
45.000				-.3926				
90.000			-.3684	-.3979	-.4435	-.5574	-.8176	
135.000				-.4104	-.5041	-.6509		.4239
180.000			-.3422	-.3685	-.3667	-.4552	-.6244	
225.000						-.6649		.3716
270.000	-.3582	-.3649	-.3751				-.4821	
315.000			-.3804	-.4036	-.5307			-.4246

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H89) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 2.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.970 BETA (1) = .016 MACH = 1.1009 RN/L = 4.4134 PO = 2105.5 P = 985.03

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3692	-.3776	-.4230	-.4756	-.6119	-.2937	
45.000			-.4310				
90.000		-.4019	-.4089	-.4128	-.4147	-.4490	
135.000			-.4143	-.4334	-.5386		.3028
180.000		-.3950	-.4193	-.4671	-.5153	-.6992	
225.000					-.5662		.3004
270.000	-.3888	-.3990	-.4138			-.4456	
315.000			-.4362	-.4684	-.5904		-.0753

ALPHA (2) = -.436 BETA (1) = -3.994 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3798	-.4045	-.4195	-.4358	-.5447	-.3260	
45.000			-.4354				
90.000		-.4100	-.4255	-.4376	-.4658	-.6596	
135.000			-.4233	-.4597	-.6069		.5805
180.000		-.3840	-.3948	-.4015	-.5157	-.6874	
225.000					-.5130		.2289
270.000	-.3913	-.4034	-.4258			-.4472	
315.000			-.4460	-.4673	-.5917		-.0641

ALPHA (2) = -.429 BETA (2) = .009 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3411	-.3560	-.3835	-.4197	-.5759	-.3070	
45.000			-.4044				
90.000		-.3526	-.3751	-.3833	-.4738	-.5551	
135.000			-.3673	-.3941	-.5304		.4039
180.000		-.3593	-.3828	-.4428	-.4903	-.6881	
225.000					-.5540		.3953

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H89)

ALPHA (2) = -.429 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3459	-.3507	-.3739			-.4934	
315.000			-.4376	-.4389	-.5498		-.0748

ALPHA (2) = -.466 BETA (3) = 4.031 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3824		-.3904	-.4025	-.4149	-.5239	-.3233
45.000				-.4107			
90.000			-.3905	-.4069	-.4166	-.4256	-.4458
135.000				-.4011	-.4335	-.4895	.2109
180.000			-.3817	-.3920	-.4635	-.6181	-.8059
225.000						-.5313	.4521
270.000	-.3841	-.3866	-.4013				-.6000
315.000			-.4635	-.4813	-.5997		-.1024

ALPHA (3) = 3.851 BETA (1) = .012 MACH = 1.1043 RN/L = 4.4260 PO = 2112.6 P = 984.21

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3881		-.3922	-.4176	-.4412	-.5788	-.3207
45.000				-.4458			
90.000			-.3988	-.4095	-.4156	-.4568	-.6790
135.000				-.4109	-.4456	-.5589	.4458
180.000			-.4112	-.4193	-.4651	-.5147	-.7787
225.000						-.5613	.3409
270.000	-.3891	-.3914	-.4190				-.5499
315.000			-.4628	-.4982	-.6447		-.1288

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H90) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-OB = 4.000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.960 BETA (1) = -.003 MACH = .59940 RN/L = 3.4955 PO = 2121.1 P = 1665.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3348	-.2644	-.2768	-.3325	-.6662	-.8206	
45.000			-.3345				
90.000		-.3328	-.3802	-.4065	-.5724	-.7612	
135.000			-.3444	-.3969	-.5960		.2282
180.000		-.3161	-.3379	-.3570	-.4327	-.6650	
225.000					-.7068		.1587
270.000	-.3137	-.3127	-.3280			-.6321	
315.000			-.3222	-.3424	-.4736		-.5435

ALPHA (2) = -.267 BETA (1) = -4.003 MACH = .59907 RN/L = 3.4936 PO = 2121.1 P = 1664.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3252	-.2560	-.2767	-.3052	-.6194	-.8629	
45.000			-.3384				
90.000		-.3190	-.4172	-.4566	-.5271	-.7506	
135.000			-.3542	-.3826	-.6317		.3306
180.000		-.3227	-.3506	-.3806	-.4542	-.6745	
225.000					-.6528		.0881
270.000	-.3083	-.3005	-.3209			-.6019	
315.000			-.3093	-.3189	-.4629		-.5736

ALPHA (2) = -.291 BETA (2) = .012 MACH = .59907 RN/L = 3.4936 PO = 2121.1 P = 1664.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3047	-.2446	-.2641	-.2965	-.6325	-.8176	
45.000			-.3180				
90.000		-.3116	-.3736	-.3984	-.5393	-.7085	
135.000			-.3309	-.3774	-.5034		.2584
180.000		-.3038	-.3353	-.3404	-.4366	-.6619	
225.000					-.6933		.2004

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF)

ET BASE

(RE4H90)

ALPHA (2) = -.291 BETA (2) = .012

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2912	-.2946	-.3194			-.6292	
315.000				-.3031	-.3027	-.4000		-.5403

PHI								
270.000		-.2912	-.2946	-.3194			-.6292	
315.000				-.3031	-.3027	-.4000		-.5403

ALPHA (2) = -.294 BETA (3) = 4.028 MACH = .59907 RN/L = 3.4936 PO = 2121.1 P = 1664.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3105	-.2559	-.2663	-.2878	-.5973	-.6580	
45.000				-.3158				
90.000			-.3147	-.3410	-.3754	-.5122	-.7111	
135.000				-.3130	-.3434	-.4856		.0758
180.000			-.2892	-.3284	-.3250	-.4427	-.6758	
225.000						-.7113		.2471
270.000		-.2993	-.2991	-.3345			-.6745	
315.000				-.3192	-.3188	-.4131		-.5598

PHI								
.000		-.3105	-.2559	-.2663	-.2878	-.5973	-.6580	
45.000				-.3158				
90.000			-.3147	-.3410	-.3754	-.5122	-.7111	
135.000				-.3130	-.3434	-.4856		.0758
180.000			-.2892	-.3284	-.3250	-.4427	-.6758	
225.000						-.7113		.2471
270.000		-.2993	-.2991	-.3345			-.6745	
315.000				-.3192	-.3188	-.4131		-.5598

ALPHA (3) = 3.973 BETA (1) = .006 MACH = .59860 RN/L = 3.4896 PO = 2121.1 P = 1664.8

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.3099	-.2441	-.2549	-.2697	-.6314	-.8334	
45.000				-.3156				
90.000			-.3081	-.3657	-.4096	-.4831	-.6519	
135.000				-.3367	-.3806	-.6100		.2973
180.000			-.2910	-.3268	-.3483	-.4279	-.6549	
225.000						-.6944		.2636
270.000		-.2953	-.2873	-.2849			-.5871	
315.000				-.3033	-.3064	-.3376		-.5052

PHI								
.000		-.3099	-.2441	-.2549	-.2697	-.6314	-.8334	
45.000				-.3156				
90.000			-.3081	-.3657	-.4096	-.4831	-.6519	
135.000				-.3367	-.3806	-.6100		.2973
180.000			-.2910	-.3268	-.3483	-.4279	-.6549	
225.000						-.6944		.2636
270.000		-.2953	-.2873	-.2849			-.5871	
315.000				-.3033	-.3064	-.3376		-.5052

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HS1) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LPEF = 1290.3000 IN. YMRP = .0000 IN.
BPEF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.990 BETA (1) = -.003 MACH = .90430 RN/L = 4.2125 PO = 2104.8 P = 1238.7

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3368	-.3448	-.3705	-.3724	-.4040	-.7028		
45.000			-.4001					
90.000		-.3429	-.3853	-.4328	-.5286	-.7581		
135.000			-.3533	-.4099	-.5686		.2698	
180.000		-.3214	-.3456	-.3452	-.4426	-.5949		
225.000					-.6794		.2665	
270.000	-.3394	-.3417	-.3577			-.5923		
315.000			-.3855	-.4395	-.5742		-.4294	

ALPHA (2) = -.267 BETA (1) = -4.003 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3521	-.3452	-.3639	-.3729	-.4022	-.6831		
45.000			-.3676					
90.000		-.3484	-.4125	-.4719	-.5106	-.7834		
135.000			-.3520	-.3900	-.6415		.4738	
180.000		-.3341	-.3645	-.4025	-.4863	-.6855		
225.000					-.6461		.1595	
270.000	-.3565	-.3455	-.3548			-.5740		
315.000			-.4017	-.4690	-.5963		-.4048	

ALPHA (2) = -.291 BETA (2) = .012 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3313	-.3319	-.3515	-.3604	-.4001	-.6896		
45.000			-.3824					
90.000		-.3332	-.3998	-.4417	-.4994	-.7242		
135.000			-.3683	-.4488	-.6034		.3663	
180.000		-.3088	-.3413	-.3471	-.4477	-.6099		
225.000					-.6577		.3409	

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H91)

ALPHA (2) = -.291 BETA (2) = .012

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3365	-.3358	-.3445			-.5609	
315.000			-.3653	-.3911	-.5385		-.4148

ALPHA (2) = -.284 BETA (3) = 4.028 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3340	-.3533	-.3642	-.3735	-.3991	-.6879	
45.000			-.4048				
90.000		-.3325	-.3590	-.3642	-.5080	-.7829	
135.000			-.3517	-.3719	-.5144		.0864
180.000		-.3543	-.3564	-.3673	-.4664	-.6891	
225.000					-.7208		.3454
270.000	-.3436	-.3410	-.3390			-.4790	
315.000			-.3430	-.3838	-.4941		-.4158

ALPHA (3) = 3.970 BETA (1) = -.003 MACH = .90050 RN/L = 4.1955 PO = 2102.7 P = 1242.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3230	-.3135	-.3475	-.3548	-.3991	-.6787	
45.000			-.3552				
90.000		-.3255	-.3677	-.4135	-.5038	-.7250	
135.000			-.3683	-.4599	-.6094		.4295
180.000		-.3047	-.3269	-.3322	-.4368	-.5963	
225.000					-.6237		.3808
270.000	-.3242	-.3231	-.3271			-.4444	
315.000			-.3324	-.3626	-.4746		-.4070

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H92) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .003 MACH = 1.0978 RN/L = 4.3356 PO = 2110.5 P = 991.11

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3872 -.4048 -.4555 -.5059 -.6393 -.3005
 45.000 -.4511
 90.000 -.4444 -.4625 -.4601 -.4653 -.4568
 135.000 -.4174 -.4420 -.5466 .3119
 180.000 -.3962 -.4029 -.4162 -.5064 -.7172
 225.000 -.5576 .2974
 270.000 -.435 -.4383 -.4471 -.4469
 315.000 -.4743 -.5043 -.6169 -.0753

ALPHA (2) = -.284 BETA (1) = -3.994 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.4173 -.4494 -.4639 -.4796 -.5986 -.3356
 45.000 -.4892
 90.000 -.4608 -.4733 -.4870 -.5084 -.6816
 135.000 -.4706 -.5034 -.6539 .5911
 180.000 -.4281 -.4235 -.4441 -.5369 -.7127
 225.000 -.5311 .2409
 270.000 -.4336 -.4490 -.4796 -.4574
 315.000 -.4916 -.5133 -.6267 -.0741

ALPHA (2) = -.281 BETA (2) = .000 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.97

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3549 -.3858 -.4098 -.4463 -.5897 -.3154
 45.000 -.4225
 90.000 -.4115 -.4354 -.4490 -.5109 -.5795
 135.000 -.3892 -.4152 -.5274 .3881
 180.000 -.3604 -.3707 -.3755 -.4692 -.6911
 225.000 -.5546 .3928

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H92)

ALPHA (2) = -.281 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3750	-.4006	-.4081			-.5493	
315.000				-.4196	-.4228	-.5396		-.0813

ALPHA (2) = -.320 BETA (3) = 4.028 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.4222		-.4329	-.4471	-.4601	-.5652	-.3315
45.000					-.4573			
90.000				-.4307	-.4428	-.4505	-.4551	-.4558
135.000					-.4425	-.4676	-.5246	.2240
180.000				-.4184	-.4234	-.4281	-.5469	-.8648
225.000						-.5597		.4676
270.000		-.4288	-.4317	-.4452			-.6644	
315.000				-.5133	-.5323	-.6437		-.1145

ALPHA (3) = 3.977 BETA (1) = .003 MACH = 1.0998 RN/L = 4.3390 PO = 2109.8 P = 988.41

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.4060		-.4246	-.4422	-.4676	-.5990	-.3270
45.000					-.4711			
90.000				-.4493	-.4638	-.4759	-.4853	-.6945
135.000					-.4416	-.4734	-.5724	.4449
180.000				-.4075	-.4079	-.4277	-.5313	-.7782
225.000						-.5653		.3488
270.000		-.4133	-.4323	-.4452			-.6646	
315.000				-.4636	-.4986	-.6276		-.1336

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H93) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-09 = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .006 MACH = 1.2528 RN/L = 4.3463 PO = 2110.5 P = 811.76

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3220 - .3390 - .3996 - .4684 - .4877 - .1462
 45.000 - .4036
 90.000 - .3692 - .3967 - .3951 - .4040 - .4888
 135.000 - .3471 - .3739 - .4549 .4441
 180.000 - .3171 - .3251 - .3161 - .3829 - .5402
 225.000 - .4482 .3423
 270.000 - .3368 - .3423 - .3868 - .4859
 315.000 - .3803 - .4046 - .5111 - .0271

ALPHA (2) = -.238 BETA (1) = -3.997 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3322 - .3568 - .3964 - .4394 - .5279 - .1818
 45.000 - .4355
 90.000 - .3798 - .3948 - .3923 - .4020 - .4829
 135.000 - .3732 - .4014 - .4458 .6331
 180.000 - .3317 - .3259 - .3469 - .4277 - .5177
 225.000 - .3692 .2754
 270.000 - .3302 - .3379 - .3939 - .5105
 315.000 - .4381 - .4514 - .5161 - .0131

ALPHA (2) = -.231 BETA (2) = .000 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3075 - .3156 - .3686 - .4287 - .4886 - .1490
 45.000 - .4335
 90.000 - .3491 - .3697 - .3595 - .3747 - .4873
 135.000 - .3310 - .3654 - .4439 .4918
 180.000 - .3000 - .3078 - .2942 - .3606 - .5440
 225.000 - .4486 .3963

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H93)

ALPHA (2) = -.231 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3169	-.3187	-.3693			-.5169
315.000				-.3920	-.4203	-.5187	-.0089

ALPHA (2) = -.284 BETA (3) = 4.034 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3340		-.3498	-.3852	-.4188	-.5209	-.1846
45.000				-.4526			
90.000			-.3469	-.3419	-.3397	-.3610	-.5100
135.000				-.3499	-.3769	-.4352	.1945
180.000			-.3256	-.3325	-.3425	-.4226	-.6317
225.000						-.4085	.4750
270.000		-.3495	-.3490	-.3960			-.4744
315.000				-.4693	-.4963	-.5577	-.0133

ALPHA (3) = 3.977 BETA (1) = .000 MACH = 1.2524 RN/L = 4.3409 PO = 2110.5 P = 812.19

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3175		-.3130	-.3600	-.3813	-.4793	-.1769
45.000				-.4281			
90.000			-.3326	-.3379	-.3450	-.3640	-.4796
135.000				-.3275	-.3495	-.4025	.4715
180.000			-.3462	-.3329	-.3333	-.4135	-.5791
225.000						-.4040	.3874
270.000		-.3154	-.3176	-.3619			-.4524
315.000				-.4511	-.5099	-.5531	-.0135

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H94) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.887 BETA (1) = .016 MACH = 1.4070 RN/L = 4.3762 PO = 2135.2 P = 664.38

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2971	-.2938	-.3122	-.3294	-.3776	-.1872	
45.000			-.3329				
90.000		-.3059	-.3066	-.3036	-.3029	-.3850	
135.000			-.3358	-.3585	-.4101		.4704
180.000		-.3141	-.3140	-.3039	-.3995	-.4301	
225.000					-.3915		.3485
270.000	-.2995	-.3052	-.3171		-.3834		
315.000			-.3134	-.3584	-.4153		-.0650

ALPHA (2) = -.271 BETA (1) = -3.991 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2876	-.2854	-.3053	-.3301	-.3960	-.1618	
45.000			-.3204				
90.000		-.3447	-.3398	-.3349	-.3302	-.3495	
135.000			-.3845	-.3817	-.2636		.5670
180.000		-.2861	-.2850	-.3056	-.3451	-.3623	
225.000					-.3477		.2709
270.000	-.2609	-.2839	-.2935		-.3557		
315.000			-.3113	-.3325	-.4101		-.0405

ALPHA (2) = -.251 BETA (2) = .009 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2592	-.2595	-.2832	-.3092	-.3758	-.1708	
45.000			-.2852				
90.000		-.3016	-.3114	-.2998	-.2928	-.3882	
135.000			-.3140	-.3257	-.3638		.5413
180.000		-.2643	-.2528	-.2312	-.2927	-.4189	
225.000					-.3291		.3897

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4H94)

ALPHA (2) = -.251 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2653	-.2714	-.3207			-.3978	
315.000			-.2850	-.3179	-.3826		-.0396

ALPHA (2) = -.284 BETA (3) = 4.031 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2775		-.2798	-.2990	-.3178	-.3885	-.1599
45.000				-.3292			
90.000			-.2847	-.2832	-.2811	-.2887	-.3454
135.000				-.2857	-.3042	-.3494	.2117
180.000			-.2716	-.2789	-.3036	-.3463	-.5108
225.000						-.2721	-.4463
270.000	-.2961	-.2930	-.3296			-.3723	
315.000			-.3013	-.3563	-.3978		-.0417

ALPHA (3) = 3.973 BETA (1) = .006 MACH = 1.3982 RN/L = 4.3323 PO = 2123.9 P = 569.12

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2562		-.2514	-.2977	-.3339	-.396	-.0721
45.000				-.3345			
90.000			-.2527	-.3169	-.3206	-.3771	-.4089
135.000				-.3426	-.3378	-.3507	.5225
180.000			-.2632	-.2549	-.2290	-.2937	-.4292
225.000						-.3306	.4000
270.000	-.2542	-.2539	-.2856			-.4044	
315.000			-.3004	-.3978	-.3686		.0435

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4495) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -3.950 BETA (1) = .006 MACH = .58310 RN/L = 3.4103 PO = 2111.9 P = 1677.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3766	-.3124	-.3033	-.3812	-.7135	-.8657	
45.000			-.3696				
90.000		-.3639	-.4180	-.4613	-.6008	-.8172	
135.000			-.3721	-.4264	-.6324		.2070
180.000		-.3436	-.3709	-.3972	-.4450	-.7034	
225.000					-.7384		.1335
270.000	-.3618	-.3389	-.3680			-.6977	
315.000			-.3634	-.3868	-.5107		-.5874

ALPHA (2) = -.297 BETA (1) = -4.003 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3467	-.2844	-.2922	-.3258	-.6527	-.8959	
45.000			-.3533				
90.000		-.3468	-.4359	-.4918	-.5609	-.7767	
135.000			-.3711	-.4030	-.6558		.3239
180.000		-.3444	-.3714	-.3958	-.4352	-.7125	
225.000					-.6685		.0901
270.000	-.3340	-.3221	-.3382			-.6295	
315.000			-.3320	-.3514	-.4931		-.6044

ALPHA (2) = -.307 BETA (2) = .012 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3152	-.2635	-.2884	-.3219	-.6810	-.8381	
45.000			-.3445				
90.000		-.3524	-.3941	-.4084	-.5734	-.7366	
135.000			-.3561	-.3958	-.6281		.2544
180.000		-.3301	-.3445	-.3544	-.4432	-.6675	
225.000					-.7172		.1929

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-0231AB0 OTS(SRB=N ORB=N)

ET BASE

(RE4H95)

ALPHA (2) = -.307 BETA (2) = .012

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000		-.3152	-.3195	-.3288		-.6389	
315.000			-.3195	-.3233	-.4367		-.5601

ALPHA (2) = -.376 BETA (3) = 4.022 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3484		-.2957	-.2943	-.3272	-.6298	-.8910
45.000				-.3354			
90.000			-.3388	-.3686	-.4208	-.5545	-.7606
135.000				-.3364	-.3782	-.5190	.0562
180.000			-.3209	-.3537	-.3599	-.4517	-.7004
225.000						-.7354	.2329
270.000	-.3384	-.3247	-.3521			-.7297	
315.000			-.3479	-.3599	-.4476		-.5817

ALPHA (3) = 4.020 BETA (1) = -.003 MACH = .60100 RN/L = 3.4818 PO = 2111.9 P = 1654.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3278		-.2558	-.2844	-.3184	-.6866	-.8794
45.000				-.3425			
90.000			-.3367	-.3959	-.4329	-.5247	-.6845
135.000				-.3586	-.4025	-.6438	.2901
180.000			-.3313	-.3434	-.3529	-.4418	-.6744
225.000						-.7243	.2448
270.000	-.3092	-.3170	-.3159			-.6122	
315.000			-.3232	-.3213	-.4393		-.5327

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80
 ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

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(RE4H96) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 RREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.891 BETA (1) = -.003 MACH = .90360

RN/L = 4.2068 PO = 2105.2 P = 1240.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
-------	-------	-------	-------	-------	-------	-------	-------	--------

PHI								
.000	-.3720		-.3846	-.4015	-.4120	-.4546	-.7002	
45.000				-.4370				
90.000			-.3829	-.4110	-.4495	-.5677	-.8142	
135.000				-.3923	-.4459	-.6052		.2655
180.000			-.3524	-.3777	-.3907	-.4622	-.6223	
225.000						-.7028		.2597
270.000							-.6305	
315.000		-.3748	-.3759	-.3855	-.4208	-.4878	-.6411	-.4281

ALPHA (2) = -.390 BETA (1) = -.4003 MACH = .89957

RN/L = 4.1991

PO = 2105.5 P = 1245.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
-------	-------	-------	-------	-------	-------	-------	-------	--------

PHI								
.000	-.3942		-.3938	-.4097	-.4295	-.4483	-.6987	
45.000				-.4229				
90.000			-.3872	-.4312	-.5139	-.5629	-.8798	
135.000				-.3848	-.4243	-.6746		.4696
180.000			-.3750	-.3943	-.4150	-.5354	-.8098	
225.000						-.6966		.1411
270.000							-.6391	
315.000		-.3964	-.3895	-.4111	-.4702	-.5601	-.6689	-.4188

ALPHA (2) = -.360 BETA (2) = .012 MACH = .89957

RN/L = 4.1991

PO = 2105.5 P = 1245.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
-------	-------	-------	-------	-------	-------	-------	-------	--------

PHI								
.000	-.36-3		-.3685	-.3947	-.4056	-.4672	-.6861	
45.000				-.4222				
90.000			-.3798	-.4154	-.4699	-.5698	-.7793	
135.000				-.4046	-.4794	-.6360		.3593
180.000			-.3553	-.3795	-.3704	-.4706	-.6256	
225.000						-.6820		.3316

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OF POOR QUALITY

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H96)

ALPHA (2) = -.360 BETA (2) = .012

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3675	-.3792	-.3811			-.5956	
315.000			-.3968	-.4370	-.6432		-.4145

ALPHA (2) = -.406 BETA (3) = 4.031 MACH = .89957 RN/L = 4.1991 PO = 2105.5 P = 1245.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3676		-.3744	-.3902	-.4049	-.4408	-.6858
45.000				-.4389			
90.000			-.3545	-.3791	-.3843	-.5257	-.8104
135.000				-.3898	-.3948	-.5460	.0781
180.000			-.3882	-.3880	-.4079	-.4968	-.7240
225.000						-.7264	.3358
270.000	-.3640	-.3636	-.3638			-.5066	
315.000			-.3864	-.4085	-.5559		-.4180

ALPHA (3) = 3.986 BETA (1) = -.003 MACH = .90050 RN/L = 4.1971 PO = 2105.5 P = 1244.3

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3658		-.3665	-.3832	-.4026	-.4626	-.6820
45.000				-.3904			
90.000			-.3678	-.3908	-.4382	-.5548	-.8118
135.000				-.4079	-.4979	-.6448	.4247
180.000			-.3381	-.3701	-.3692	-.4510	-.6316
225.000						-.6526	.3753
270.000	-.3696	-.3632	-.3720			-.478	
315.000			-.3805	-.4095	-.5309		-.4156

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H97) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = .003 MACH = 1.0995 RN/L = 4.3360 PO = 2105.5 P = 986.72

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3741 - .3763 - .4279 - .4771 - .6118 - .2969
 45.000 - .4373
 90.000 - .4038 - .4116 - .4118 - .4185 - .4500
 135.000 - .4127 - .4339 - .5427 .3025
 180.000 - .3855 - .4163 - .4696 - .5160 - .6929
 225.000 - .5670 .2989
 270.000 - .3895 - .4031 - .4156 - .4472
 315.000 - .4446 - .4664 - .5917 - .0751

ALPHA (2) = -.409 BETA (1) = -3.997 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3914 - .4178 - .4273 - .4431 - .5516 - .3343
 45.000 - .4495
 90.000 - .4198 - .4370 - .4498 - .4769 - .6717
 135.000 - .4443 - .4749 - .6195 .5963
 180.000 - .3933 - .4089 - .4200 - .5272 - .6968
 225.000 - .5249 .2330
 270.000 - .4016 - .4181 - .4392 - .4554
 315.000 - .4635 - .4882 - .6068 - .0708

ALPHA (2) = -.386 BETA (2) = -.003 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/R0D .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3469 - .3604 - .3864 - .4221 - .5762 - .3126
 45.000 - .3900
 90.000 - .3602 - .3849 - .4124 - .4880 - .5595
 135.000 - .3759 - .4080 - .5330 .3916
 180.000 - .3546 - .3894 - .4500 - .4961 - .6880
 225.000 - .5655 .3895

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H97)

ALPHA (2) = -.386 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.3545	-.3577	-.3847			-.5154	
315.000				-.4376	-.4306	-.5450		-.0772

ALPHA (2) = -.429 BETA (3) = 4.028 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3963		-.4105	-.4219	-.4316	-.5229	-.3331	
45.000				-.4335				
90.000			-.4092	-.4243	-.4321	-.4415	-.4557	
135.000				-.4215	-.4505	-.5070		.2127
180.000			-.4037	-.4169	-.4827	-.6533	-.8139	
225.000						-.5552		.4632
270.000		-.4011	-.4070	-.4227			-.6183	
315.000				-.4830	-.5049	-.6165		-.1176

ALPHA (3) = 4.033 BETA (1) = -.003 MACH = 1.0997 RN/L = 4.3440 PO = 2106.2 P = 936.87

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3971		-.4007	-.4230	-.4489	-.5793	-.3272	
45.000				-.4525				
90.000			-.4030	-.4197	-.4322	-.4752	-.6881	
135.000				-.4202	-.4564	-.5546		.4410
180.000			-.4091	-.4076	-.4722	-.5149	-.7794	
225.000						-.5640		.3367
270.000		-.3990	-.4001	-.4243			-.5526	
315.000				-.4563	-.4962	-.6354		-.1325

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H98) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LPEF = 1290.3000 IN. YMRP = .0000 IN.
 BPEF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-OB = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.973 BETA (1) = .003 MACH = 1.2526 RN/L = 4.3420 PO = 2108.4 P = 811.19

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .2862 - .2882 - .3429 - .4052 - .4849 - .1439
 45.000 - .3568
 90.000 - .3026 - .3112 - .3097 - .3184 - .4933
 135.000 - .2986 - .3311 - .4437 .3969
 180.000 - .2988 - .3473 - .3565 - .3654 - .5154
 225.000 - .4668 .3207
 270.000 - .2843 - .2810 - .3168 - .4855
 315.000 - .3615 - .3922 - .5074 - .0289

ALPHA (2) = -.482 BETA (1) = -3.994 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.99

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .2779 - .2875 - .3227 - .3573 - .4718 - .1800
 45.000 - .3140
 90.000 - .3086 - .3184 - .3240 - .3364 - .4815
 135.000 - .3171 - .3477 - .4111 .6280
 180.000 - .2965 - .3004 - .3163 - .3917 - .4186
 225.000 - .4140 .2450
 270.000 - .2656 - .2651 - .3143 - .4959
 315.000 - .3308 - .4042 - .4779 - .0110

ALPHA (2) = -.439 BETA (2) = -.003 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.96

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .2671 - .2607 - .3154 - .3689 - .4709 - .1455
 45.000 - .3319
 90.000 - .2726 - .2816 - .2791 - .2992 - .4963
 135.000 - .2780 - .3365 - .4556 .4718
 180.000 - .3070 - .3412 - .3639 - .3674 - .4826
 225.000 - .4511 .3743

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H98)

ALPHA (2) = -.439 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2617	-.2593	-.2990			-.5109	
315.000			-.3735	-.4224	-.5237			-.0085

ALPHA (2) = -.416 BETA (3) = 4.028 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.98

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2763		-.2859	-.3216	-.3501	-.4651	-.1845	
45.000			-.3645					
90.000			-.2828	-.2896	-.3210	-.3857	-.5062	
135.000				-.2904	-.3367	-.4037		.1773
180.000			-.2807	-.3244	-.3600	-.4280	-.5758	
225.000						-.3931		.4572
270.000	-.2940	-.2856	-.3329			-.4312		
315.000			-.3319	-.4696	-.5431			-.0132

ALPHA (3) = 4.020 BETA (1) = .003 MACH = 1.2508 RN/L = 4.3353 PO = 2107.7 P = 812.82

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2681		-.2597	-.3056	-.3235	-.4361	-.1782	
45.000			-.3303					
90.000			-.2692	-.2802	-.2911	-.3103	-.4748	
135.000				-.2876	-.3117	-.4070		.4773
180.000			-.3092	-.3274	-.3630	-.3665	-.5317	
225.000						-.4161		.3853
270.000	-.2681	-.2642	-.2990			-.4013		
315.000			-.3006	-.4642	-.5440			-.0133

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4H99) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMPP = .0000 IN.
 LREF = 1290.3000 IN. YMPP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.944 BETA (1) = .009 MACH = 1.4093 RN/L = 4.2699 PO = 2108.4 P = 653.90

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2222	-.2090	-.2272	-.2422	-.3157	-.1835	
45.000			-.2330				
90.000		-.2282	-.2412	-.2283	-.2305	-.3923	
135.000			-.2409	-.2958	-.3639		.4284
180.000		-.2504	-.2625	-.3322	-.3231	-.4038	
225.000					-.3744		.3170
270.000	-.2250	-.2305	-.2592			-.3933	
315.000			-.2575	-.3098	-.3886		-.0638

ALPHA (2) = -.403 BETA (1) = -3.991 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.35

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2206	-.2040	-.2245	-.2402	-.3247	-.1612	
45.000			-.2381				
90.000		-.2621	-.2565	-.2537	-.2551	-.3509	
135.000			-.3234	-.3375	-.2691		.5541
180.000		-.2377	-.2435	-.2510	-.2878	-.3083	
225.000					-.3157		.2347
270.000	-.2143	-.2150	-.2516			-.3328	
315.000			-.2476	-.3017	-.3931		-.0403

ALPHA (2) = -.386 BETA (2) = .012 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.35

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2124	-.1867	-.2149	-.2357	-.3183	-.1716	
45.000			-.2253				
90.000		-.2259	-.2295	-.2264	-.2277	-.3929	
135.000			-.2516	-.2861	-.3592		.5251
180.000		-.2373	-.2709	-.3378	-.3044	-.3979	
225.000					-.3431		.3566

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4H99)

ALPHA (2) = -.386 BETA (2) = .012

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2115	-.2152	-.2503			-.3926	
315.000				-.2201	-.2725	-.3696		-.0404

ALPHA (2) = -.443 BETA (3) = 4.034 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.36

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2169		-.2201	-.2357	-.2495	-.3286	-.1642
45.000					-.2500			
90.000			-.2195	-.2222	-.2219	-.2260	-.3452	
135.000				-.2291	-.2567	-.3029		.1951
180.000			-.2137	-.2531	-.3007	-.3312	-.4495	
225.000						-.2896		.4402
270.000		-.2322	-.2313	-.2638			-.3644	
315.000				-.2205	-.2401	-.3646		-.0446

ALPHA (3) = 3.864 BETA (1) = .012 MACH = 1.4084 RN/L = 4.2570 PO = 2109.1 P = 654.92

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000		-.2025		-.1858	-.2497	-.2707	-.3682	-.0697
45.000					-.2192			
90.000			-.2153	-.2326	-.2354	-.3223	-.3985	
135.000				-.2563	-.3173	-.3299		.5156
180.000			-.2223	-.2444	-.3048	-.2613	-.3799	
225.000						-.3152		.3937
270.000		-.1966	-.1975	-.2267			-.3741	
315.000				-.2029	-.2679	-.3039		.0081

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA0) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0000

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.824 BETA (1) = .000 MACH = .60180 RN/L = 3.5043 PO = 2121.1 P = 1660.6

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.193		-.2527	-.2748	-.3279	-.6629	-.8179	
45.000				-.3333				
90.000			-.3346	-.3752	-.3955	-.5636	-.7543	
135.000				-.3447	-.3823	-.6048		.2328
180.000			-.3130	-.3360	-.3525	-.4321	-.6623	
225.000						-.7011		.1638
270.000	-.3092	-.3103	-.3241				-.6273	
315.000			-.3214	-.3253	-.4625			-.5399

ALPHA (2) = -.281 BETA (1) = -4.003 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.297		-.2558	-.2844	-.3065	-.6244	-.8654	
45.000				-.3462				
90.000			-.3295	-.4204	-.4681	-.5401	-.7541	
135.000				-.3592	-.3892	-.6418		.3319
180.000			-.3230	-.3561	-.3898	-.4620	-.6788	
225.000						-.6667		.0894
270.000	-.3127	-.3097	-.3230				-.5916	
315.000			-.3113	-.3287	-.4673			-.5749

ALPHA (2) = -.287 BETA (2) = .012 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.145		-.2564	-.2667	-.3042	-.6391	-.8255	
45.000				-.3206				
90.000			-.3250	-.3759	-.3980	-.5366	-.7270	
135.000				-.3421	-.3919	-.6027		.2569
180.000			-.3094	-.3366	-.3540	-.4374	-.6585	
225.000						-.6974		.1939

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HAD)

ALPHA (2) = -.287 BETA (2) = .012

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RDD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3039	-.2961	-.3162			-.6357	
315.000			-.3111	-.3128	-.4109		-.5529

ALPHA (2) = -.501 BETA (3) = 4.028 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RDD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3207		-.2692	-.2789	-.3065	-.6130	-.9548
45.000				-.3179			
90.000			-.3217	-.3545	-.3923	-.5102	-.7320
135.000				-.3271	-.3513	-.5025	.0700
180.000			-.3063	-.3338	-.3509	-.4543	-.6966
225.000					-.7254		.2397
270.000	-.3200	-.3172	-.3417			-.6983	
315.000			-.3294	-.3351	-.4419		-.5723

ALPHA (3) = 3.986 BETA (1) = .012 MACH = .59790 RN/L = 3.4847 PO = 2122.5 P = 1656.8

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RDD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3145		-.2432	-.2582	-.2935	-.6442	-.8506
45.000				-.3250			
90.000			-.3138	-.3766	-.4199	-.4957	-.6625
135.000				-.3414	-.3953	-.6119	.2954
180.000			-.2994	-.3336	-.3537	-.4023	-.6727
225.000					-.6034		.2559
270.000	-.2998	-.2316	-.2984			-.6014	
315.000			-.3107	-.3139	-.4044		-.5134

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = 4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.996 BETA (1) = .009 MACH = .89940 RN/L = 4.2300 PO = 2121.8 P = 1255.3

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3353 -.3353 -.3671 -.3742 -.4036 -.7122
 45.000 -.4004
 90.000 -.3441 -.3912 -.4339 -.5191 -.7614
 135.000 -.3544 -.4101 -.5726 .2725
 180.000 -.3176 -.3406 -.3438 -.4407 -.5950
 225.000 -.6635 .2707
 270.000 -.3433 -.3415 -.3482 -.5922
 315.000 -.3768 -.4325 -.5095 -.4359

ALPHA (2) = -.281 BETA (1) = -4.006 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3516 -.3446 -.3600 -.3758 -.4015 -.6937
 45.000 -.3794
 90.000 -.3478 -.4120 -.4721 -.5101 -.7804
 135.000 -.3494 -.3892 -.6383 .4745
 180.000 -.3371 -.3614 -.3992 -.4821 -.6970
 225.000 -.6477 .1577
 270.000 -.3516 -.3462 -.3562 -.5754
 315.000 -.4032 -.4691 -.5913 -.4107

ALPHA (2) = -.284 BETA (2) = .009 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/RCD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 -.3237 -.3211 -.3634 -.3571 -.4126 -.6772
 45.000 -.3831
 90.000 -.3359 -.4000 -.4415 -.5037 -.7198
 135.000 -.3655 -.4460 -.5995 .3707
 180.000 -.3123 -.3368 -.3394 -.4539 -.6045
 225.000 -.6577 .3429

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA1)

ALPHA (2) = -.284 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000 -.3278 -.3379 -.3426 -.5538

315.000 -.3613 -.3881 -.5607 -.4059

ALPHA (2) = -.281 BETA (3) = 4.029 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3449 -.3447 -.3711 -.3786 -.4050 -.6948

45.000 -.4082

90.000 -.3345 -.3606 -.3695 -.5109 -.7891

135.000 -.3548 -.3794 -.5171 .0816

180.000 -.3407 -.3650 -.3707 -.4679 -.6984

225.000 -.7212 .3407

270.000 -.3441 -.3399 -.3429 -.4910

315.000 -.3559 -.3808 -.4957 -.4208

ALPHA (3) = 4.023 BETA (1) = .016 MACH = .90100 RN/L = 4.2328 PO = 2121.8 P = 1253.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 -.3207 -.3108 -.3520 -.3573 -.4021 -.6784

45.000 -.3552

90.000 -.3264 -.3591 -.4001 -.5053 -.7297

135.000 -.3731 -.4568 -.6114 .4288

180.000 -.2964 -.3270 -.3292 -.4430 -.5771

225.000 -.6242 .3833

270.000 -.3251 -.3240 -.3284 -.4410

315.000 -.3394 -.3575 -.4636 -.4067

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA2) (13 JAN 75)

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1230.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = 4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.967 BETA (1) = .006 MACH = 1.0986 RN/L = 4.3563 PO = 2114.0 P = 991.79

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3949 - .4095 - .4671 - .5150 - .6453 - .3010
 45.000 - .4596
 90.000 - .4470 - .4768 - .4665 - .4686 - .4552
 135.000 - .4262 - .4476 - .5503 .3095
 180.000 - .4013 - .4088 - .4177 - .5161 - .7253
 225.000 - .5653 .3019
 270.000 - .4280 - .4432 - .4526 - .4463
 315.000 - .4818 - .5067 - .6217 - .0743

ALPHA (2) = -.284 BETA (1) = -4.003 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .4245 - .4565 - .4724 - .4872 - .6039 - .3362
 45.000 - .4911
 90.000 - .4633 - .4823 - .4925 - .5078 - .6809
 135.000 - .4746 - .5067 - .6583 .5945
 180.000 - .4278 - .4319 - .4492 - .5468 - .7188
 225.000 - .5303 .2426
 270.000 - .4409 - .4644 - .4836 - .4580
 315.000 - .4935 - .4985 - .6293 - .0743

ALPHA (2) = -.258 BETA (2) = -.012 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3570 - .3878 - .4101 - .4502 - .5948 - .3141
 45.000 - .4104
 90.000 - .4115 - .4341 - .4471 - .5049 - .5810
 135.000 - .3918 - .4170 - .5294 .3957
 180.000 - .3605 - .3721 - .3766 - .4709 - .6917
 225.000 - .5577 .3986

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA2)

ALPHA (2) = -.258 BETA (2) = -.012

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/RCD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3752	-.3933	-.4085			-.5587
315.000				-.4290	-.4410	-.5523	-.0829

ALPHA (2) = -.301 BETA (3) = 4.016 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.4277		-.4425	-.4574	-.4697	-.5813	-.3332
45.000				-.4657			
90.000			-.4419	-.4536	-.4562	-.4640	-.4579
135.000				-.4555	-.4775	-.5350	.2205
180.000			-.4265	-.4364	-.4374	-.5581	-.8737
225.000						-.5627	.4717
270.000	-.4357	-.4407	-.4564				-.6615
315.000			-.5203	-.5417	-.6554		-.1153

ALPHA (3) = 3.947 BETA (1) = .000 MACH = 1.1030 RN/L = 4.3633 PO = 2114.0 P = 986.41

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.4078		-.4261	-.4422	-.4687	-.6023	-.3239
45.000				-.4690			
90.000			-.4501	-.4666	-.4751	-.4660	-.6902
135.000				-.4447	-.4724	-.5594	.4482
180.000			-.4048	-.4095	-.4252	-.5330	-.7841
225.000						-.5621	.3454
270.000	-.4149	-.4318	-.4456				-.6529
315.000			-.4739	-.4981	-.6361		-.1312

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA3) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETER C DATA

ELV-IB = .000 ELV-OB = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.947 BETA (1) = -.006 MACH = 1.2545 RN/L = 4.3671 PO = 2114.0 P = 811.27

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3265	-.3443	-.4096	-.4794	-.4869	-.1457	
45.000			-.4062				
90.000		-.3771	-.4057	-.4037	-.4113	-.4893	
135.000			-.3516	-.3776	-.4567		.4432
180.000		-.3207	-.3286	-.3177	-.3859	-.5520	
225.000					-.4510		.3403
270.000	-.3427	-.3489	-.3912			-.4882	
315.000			-.3909	-.4177	-.5183		-.0261

ALPHA (2) = -.248 BETA (1) = -.4.000 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3362	-.3610	-.4027	-.4473	-.5311	-.1791	
45.000			-.4513				
90.000		-.3852	-.4012	-.4047	-.4073	-.4767	
135.000			-.3806	-.4043	-.4478		.6306
180.000		-.3369	-.3331	-.3509	-.4310	-.5158	
225.000					-.3888		.2755
270.000	-.3361	-.3409	-.3974			-.5089	
315.000			-.4449	-.4634	-.5217		-.0115

ALPHA (2) = -.244 BETA (2) = -.006 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3087	-.3241	-.3780	-.4377	-.4681	-.1471	
45.000			-.4366				
90.000		-.3515	-.3919	-.3769	-.3856	-.4884	
135.000			-.3437	-.3712	-.4438		.5029
180.000		-.3059	-.3097	-.2913	-.3600	-.5373	
225.000					-.4513		.3972

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 12J0

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA3)

ALPHA (2) = -.244 BETA (2) = -.006

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.3227	-.3221	-.3753			-.5187	
315.000			-.3938	-.4258	-.5224		-.0092

ALPHA (2) = -.271 BETA (3) = 4.022 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3433		-.3600	-.3934	-.4337	-.5295	-.1862
45.000				-.4605			
90.000			-.3525	-.3506	-.3503	-.3663	-.5141
135.000				-.3594	-.3859	-.4413	.1928
180.000			-.3341	-.3413	-.3541	-.4311	-.6381
225.000						-.4125	.4709
270.000	-.3594	-.3555	-.4063			-.4796	
315.000			-.4797	-.5013	-.5558		-.0144

ALPHA (3) = 3.986 BETA (1) = .003 MACH = 1.2546 RN/L = 4.3551 PO = 2114.0 P = 811.12

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.3228		-.3222	-.3671	-.3889	-.4895	-.1756
45.000				-.4343			
90.000			-.3388	-.3468	-.3531	-.3714	-.4787
135.000				-.3382	-.3622	-.4089	.4706
180.000			-.3516	-.3403	-.3340	-.4139	-.5805
225.000						-.4036	.3833
270.000	-.3225	-.3227	-.3695			-.4582	
315.000			-.4624	-.5108	-.5527		-.0122

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1201

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA4) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.947 BETA (1) = .006 MACH = 1.4033 RN/L = 4.3439 PO = 2107.0 P = 659.02

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3020	-.2992	-.3208	-.3382	-.3871	-.1887	
45.000			-.3403				
90.000		-.3165	-.3160	-.3111	-.3135	-.3861	
135.000			-.3448	-.3673	-.4204		.4581
180.000		-.3216	-.3228	-.3131	-.4127	-.4278	
225.000					-.3974		.3432
270.000	-.3064	-.3150	-.3209			-.3880	
315.000			-.3239	-.3663	-.4219		-.0716

ALPHA (2) = -.267 BETA (1) = -3.994 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2992	-.2972	-.3181	-.3404	-.4055	-.1660	
45.000			-.3368				
90.000		-.3571	-.3501	-.3472	-.3424	-.3538	
135.000			-.4020	-.3953	-.2664		.5614
180.000		-.2958	-.2958	-.3146	-.3565	-.3667	
225.000					-.3521		.2551
270.000	-.2751	-.2974	-.3095			-.3616	
315.000			-.3257	-.3486	-.4222		-.0467

ALPHA (2) = -.277 BETA (2) = -.003 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/POD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2741	-.2706	-.2962	-.3217	-.3836	-.1766	
45.000			-.2993				
90.000		-.3114	-.3172	-.3120	-.3002	-.3917	
135.000			-.3254	-.3260	-.3697		.5402
180.000		-.2733	-.2673	-.2435	-.3119	-.4229	
225.000					-.3361		.3846

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

ET BASE

(RE4HA4)

ALPHA (2) = -.277 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2768	-.2806	-.3318			-.4050	
315.000			-.2971	-.3275	-.3928		-.0457

ALPHA (2) = -.284 BETA (3) = 4.019 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2900		-.2947	-.3139	-.3331	-.3989	-.1668
45.000				-.3423			
90.000			-.2969	-.2962	-.2945	-.2994	-.3549
135.000				-.2965	-.3190	-.3585	.2104
180.000			-.2833	-.2919	-.3163	-.3555	-.5213
225.000						-.3787	.4377
270.000	-.3085	-.3051	-.3427			-.3831	
315.000			-.3169	-.3667	-.4069		-.0483

ALPHA (3) = 3.986 BETA (1) = .006 MACH = 1.3970 RN/L = 4.2777 PO = 2085.7 P = 658.16

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2612		-.2591	-.3069	-.3446	-.3960	-.0726
45.000				-.3594			
90.000			-.2612	-.3265	-.3387	-.3909	-.4101
135.000				-.3516	-.3458	-.3573	.5193
180.000			-.2695	-.2638	-.2404	-.3032	-.4313
225.000						-.3352	.4002
270.000	-.2600	-.2611	-.2942			-.4085	
315.000			-.3297	-.4220	-.3939		.0427

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4HA5) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.983 BETA (1) = .012 MACH = .59900 RN/L = 3.4730 PO = 2113.3 P = 1658.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3701 - .3003 - .3075 - .3804 - .7061 - .8727
45.000 - .3751
90.000 - .3656 - .4195 - .4388 - .6052 - .8138
135.000 - .3806 - .4255 - .6280 .2125
180.000 - .3447 - .3686 - .3876 - .4479 - .7038
225.000 - .7481 .1364
270.000 - .3606 - .3358 - .3597 - .6881
315.000 - .3690 - .3807 - .5057 - .5789

ALPHA (2) = -.337 BETA (1) = -4.006 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3389 - .2764 - .2957 - .3238 - .6740 - .8828
45.000 - .3622
90.000 - .3519 - .4387 - .4850 - .5696 - .7719
135.000 - .3698 - .3948 - .6576 .3250
180.000 - .3444 - .3746 - .3934 - .4428 - .7115
225.000 - .6877 .0774
270.000 - .3252 - .3296 - .3406 - .6149
315.000 - .3290 - .3399 - .4884 - .6021

ALPHA (2) = -.370 BETA (2) = .009 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000 - .3453 - .2855 - .2990 - .3455 - .6890 - .8694
45.000 - .3514
90.000 - .3553 - .4160 - .4379 - .5839 - .7623
135.000 - .3722 - .4255 - .5462 .2448
180.000 - .3442 - .3658 - .3749 - .4535 - .6993
225.000 - .7412 .1815

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4HA5)

ALPHA (2) = -.370 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3352	-.3290	-.3491			-.6852	
315.000			-.3381	-.3445	-.4461		-.5783

ALPHA (2) = -.453 BETA (3) = 4.025 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3373	-.2915	-.3006	-.3251	-.6469	-.6877	
45.000			-.3404				
90.000		-.3418	-.3711	-.3973	-.5374	-.7445	
135.000			-.3503	-.3660	-.5200		.0585
180.000		-.3207	-.3575	-.3554	-.4509	-.6981	
225.000					-.7490		.2310
270.000	-.3346	-.3275	-.3503			-.7150	
315.000			-.3397	-.3581	-.4465		-.5809

ALPHA (3) = 3.910 BETA (1) = .009 MACH = .60100 RN/L = 3.4798 PO = 2112.6 P = 1655.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3336	-.2650	-.2881	-.3265	-.7032	-.8852	
45.000			-.3509				
90.000		-.3526	-.4141	-.4481	-.5350	-.6932	
135.000			-.3598	-.4151	-.6482		.2847
180.000		-.3306	-.3501	-.3639	-.4442	-.6848	
225.000					-.7432		.2430
270.000	-.3231	-.3187	-.3217			-.6371	
315.000			-.3343	-.3306	-.4574		-.5411

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4HA6) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = 4.000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.937 BETA (1) = .016 MACH = .90250 RN/L = 4.2121 PO = 2111.9 P = 1245.3

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3845	-.3936	-.4035	-.4210	-.4569	-.7042	
45.000			-.4454				
90.000		-.3863	-.4258	-.4575	-.5753	-.8152	
135.000			-.3985	-.4581	-.6073		.2561
180.000		-.3668	-.3825	-.3825	-.4577	-.6341	
225.000					-.7128		.2587
270.000	-.3829	-.3799	-.3965			-.6467	
315.000			-.4380	-.5092	-.6579		-.4329

ALPHA (2) = -.376 BETA (1) = -4.006 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1236.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3922	-.3936	-.4113	-.4271	-.4654	-.6826	
45.000			-.4327				
90.000		-.3981	-.4321	-.5107	-.5727	-.6882	
135.000			-.3900	-.4169	-.6741		.4762
180.000		-.3796	-.3945	-.4151	-.5404	-.8736	
225.000					-.6987		.1514
270.000	-.3976	-.3965	-.4067			-.6313	
315.000			-.4660	-.5646	-.6821		-.4028

ALPHA (2) = -.353 BETA (2) = .009 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1236.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3682	-.3733	-.4087	-.4139	-.4896	-.6669	
45.000			-.4399				
90.000		-.3910	-.4167	-.4660	-.5789	-.8131	
135.000			-.4145	-.4795	-.6371		.3660
180.000		-.3618	-.3795	-.3729	-.4735	-.6335	
225.000					-.6857		.3359

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4HA6)

ALPHA (2) = -.353 BETA (2) = .009

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3716	-.3886	-.3888			-.5971	
315.000			-.4127	-.4497	-.6823		-.3991

ALPHA (2) = -.420 BETA (3) = 4.022 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1236.2

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3674		-.3741	-.4124	-.4106	-.4545	-.6546	
45.000				-.4688				
90.000			-.3677	-.3997	-.3850	-.5354	-.7992	
135.000				-.3983	-.4012	-.5703		.0812
180.000			-.4096	-.4045	-.4106	-.5148	-.7447	
225.000						-.7387		.3399
270.000	-.3676	-.3848	-.3892				-.5213	
315.000			-.3971	-.4217	-.6630			-.4016

ALPHA (3) = 3.910 BETA (1) = .006 MACH = .91060 RN/L = 4.2296 PO = 2111.9 P = 1234.3

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3600		-.3618	-.4030	-.4056	-.4772	-.6582	
45.000				-.4086				
90.000			-.3859	-.3983	-.4314	-.5738	-.8105	
135.000				-.4231	-.4936	-.6491		.4342
180.000			-.3534	-.3756	-.3561	-.4616	-.6247	
225.000						-.6631		.3763
270.000	-.3638	-.3712	-.3736				-.4710	
315.000			-.3828	-.4010	-.5753			-.4003

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4HA7) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.996 BETA (1) = .006 MACH = 1.0997 RN/L = 4.3565 PO = 2107.7 P = 987.56

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3780	-.3808	-.4307	-.4665	-.6160	-.2975	
45.000			-.4328				
90.000		-.4072	-.4165	-.4142	-.4235	-.4525	
135.000			-.4114	-.4389	-.5409		.3036
180.000		-.3822	-.4102	-.4573	-.5123	-.6998	
225.000					-.5676		.3015
270.000	-.3920	-.4024	-.4200			-.4450	
315.000			-.4488	-.4678	-.5946		-.0751

ALPHA (2) = -.416 BETA (1) = -.4003 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 999.07

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3920	-.4194	-.4315	-.4497	-.5585	-.3360	
45.000			-.4500				
90.000		-.4223	-.4385	-.4509	-.4786	-.6687	
135.000			-.4504	-.4746	-.6232		.5769
180.000		-.3961	-.4054	-.4201	-.5414	-.6990	
225.000					-.5223		.2297
270.000	-.4052	-.4196	-.4397			-.4557	
315.000			-.4642	-.4899	-.6036		-.0710

ALPHA (2) = -.403 BETA (2) = -.012 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 999.07

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3483	-.3681	-.3972	-.4320	-.5876	-.3161	
45.000			-.3919				
90.000		-.3693	-.3921	-.4213	-.4832	-.5570	
135.000			-.3808	-.4087	-.5414		.3900
180.000		-.3572	-.3905	-.4531	-.4973	-.6964	
225.000					-.5715		.3999

ARC11-0231ABO OTS(SRB=N ORB=N)

ET BASE

(RE4HA7)

ALPHA (2) = -.403 BETA (2) = -.012

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3552	-.3664	-.3982			-.5197
315.000				-.4218	-.4237	-.5657	-.0800

ALPHA (2) = -.426 BETA (3) = 4.019 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 988.07

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.4038		-.4152	-.4279	-.4410	-.5421	-.3375
45.000				-.4463			
90.000			-.4178	-.4322	-.4430	-.4546	-.4632
135.000				-.4297	-.4573	-.5191	.2061
180.000			-.4147	-.4237	-.4924	-.6645	-.8229
225.000						-.5566	.4594
270.000		-.4100	-.4182	-.4259			-.6297
315.000				-.4819	-.5104	-.6259	-.1200

ALPHA (3) = 3.798 BETA (1) = .009 MACH = 1.0994 RN/L = 4.3619 PO = 2107.7 P = 987.85

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3975		-.4050	-.4292	-.4488	-.5895	-.3288
45.000				-.4541			
90.000			-.4143	-.4302	-.4302	-.4706	-.6830
135.000				-.4241	-.4560	-.5576	.4404
180.000			-.4070	-.3969	-.4727	-.5173	-.7802
225.000						-.5591	.3321
270.000		-.4012	-.4034	-.4314			-.5581
315.000				-.4640	-.4982	-.5407	-.1332

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) ET BASE

(RE4HAB) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = 4.000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.986 BETA (1) = .009 MACH = 1.2550 RN/L = 4.3537 PO = 2109.1 P = 808.83

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2879	-.2916	-.3434	-.4099	-.4838	-.1440	
45.000			-.3640				
90.000		-.3077	-.3202	-.3172	-.3238	-.4904	
135.000			-.3079	-.3351	-.4425		.3939
180.000		-.2979	-.3385	-.3543	-.3823	-.5105	
225.000					-.4660		.3208
270.000	-.2876	-.2828	-.3167			-.4932	
315.000			-.3628	-.3928	-.5108		-.0287

ALPHA (2) = -.400 BETA (1) = -4.003 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2808	-.2888	-.3270	-.3592	-.4769	-.1795	
45.000			-.3349				
90.000		-.3124	-.3230	-.3269	-.4818	-.4814	
135.000			-.3176	-.3342	-.4008		.6273
180.000		-.2955	-.3048	-.3184	-.4441	-.4122	
225.000					-.4094		.2450
270.000	-.2685	-.2597	-.3153			-.4954	
315.000			-.3788	-.4099	-.4791		-.0092

ALPHA (2) = -.393 BETA (2) = -.012 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2675	-.2640	-.3172	-.3745	-.4741	-.1462	
45.000			-.3359				
90.000		-.2746	-.2820	-.2812	-.2987	-.4885	
135.000			-.2780	-.3266	-.4481		.4710
180.000		-.3044	-.3399	-.3636	-.3672	-.4850	
225.000					-.4486		.3710

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A30

PAGE 1210

ARC11-0231ABU OTS(SRB=N ORB=N)

ET BASE

(RE4HAS)

ALPHA (2) = -.393 BETA (2) = -.012

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.2647	-.2628	-.2994			-.5116	
315.000			-.3785	-.4222	-.5225		-.0075

ALPHA (2) = -.413 BETA (3) = 4.022 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2826		-.2968	-.3272	-.3597	-.4728	-.1917
45.000				-.3841			
90.000			-.2862	-.2954	-.2968	-.3122	-.5089
135.000				-.3055	-.3339	-.4120	.1669
180.000			-.2876	-.3354	-.3679	-.4308	-.5823
225.000						-.4035	.4578
270.000	-.2923	-.2957	-.3391			-.4469	
315.000			-.3408	-.4789	-.5469		-.0186

ALPHA (3) = 3.947 BETA (1) = .003 MACH = 1.2539 RN/L = 4.3574 PO = 2109.1 P = 810.01

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.2675		-.2592	-.3061	-.3249	-.4369	-.1761
45.000				-.3422			
90.000			-.2717	-.2836	-.2919	-.3125	-.4707
135.000				-.2852	-.3124	-.4031	.4736
180.000			-.3100	-.3288	-.3638	-.3661	-.5274
225.000						-.4154	.3909
270.000	-.2654	-.2633	-.3013			-.4073	
315.000			-.3140	-.4664	-.5425		-.0106

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1211

ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4HA9) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.940 BETA (1) = .009 MACH = 1.4085 RN/L = 4.2899 PO = 2110.5 P = 655.32

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	.2224	-.2131	-.2323	-.2459	-.3185	-.1844		
45.000			-.2377					
90.000		-.2263	-.2359	-.2304	-.2344	-.3977		
135.000			-.2451	-.2964	-.3645		.4232	
180.000		-.2500	-.2857	-.3313	-.3271	-.4084		
225.000					-.3755		.3188	
270.000	-.2268	-.2329	-.2623			-.3959		
315.000			-.2503	-.3199	-.3913		-.0670	

ALPHA (2) = -.449 BETA (1) = -3.997 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2230	-.2069	-.2237	-.2437	-.3290	-.1624		
45.000			-.2397					
90.000		-.2659	-.2583	-.2583	-.2559	-.3539		
135.000			-.3173	-.3322	-.2678		.5626	
180.000		-.2386	-.2449	-.2546	-.2844	-.3144		
225.000					-.3141		.2367	
270.000	-.2152	-.2182	-.2518			-.3344		
315.000			-.2514	-.3053	-.3956		-.0425	

ALPHA (2) = -.380 BETA (2) = -.006 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2160	-.1923	-.2184	-.2391	-.3232	-.1746		
45.000			-.2247					
90.000		-.2288	-.2344	-.2287	-.2299	-.3978		
135.000			-.2555	-.2918	-.3637		.5280	
180.000		-.2360	-.2706	-.3330	-.3008	-.3942		
225.000					-.3485		.3538	

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

ET BASE

(RE4HA9)

ALPHA (2) = -.380 BETA (2) = -.006

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2148	-.2187	-.2525			-.3999	
315.000			-.2220	-.2694	-.3760		-.0442

ALPHA (2) = -.443 BETA (3) = 4.025 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2194		-.2240	-.2403	-.2534	-.3349	-.1640
45.000			-.2553				
90.000			-.2228	-.2281	-.2245	-.2298	-.3513
135.000				-.2342	-.2597	-.3052	.1930
180.000			-.2178	-.2583	-.3066	-.3336	-.4510
225.000						-.2902	.4388
270.000	-.2367	-.2327	-.2621			-.3690	
315.000			-.2219	-.2382	-.3712		-.0443

ALPHA (3) = 3.821 BETA (1) = .006 MACH = 1.4030 RN/L = 4.2706 PO = 2109.8 P = 657.37

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2063		-.1910	-.2494	-.2769	-.3699	-.0708
45.000				-.2232			
90.000			-.2213	-.2678	-.2789	-.3283	-.4032
135.000				-.2887	-.3183	-.3382	.5146
180.000			-.2175	-.2449	-.2947	-.2585	-.3805
225.000						-.3208	.3928
270.000	-.1999	-.1974	-.2272			-.3776	
315.000			-.2082	-.2780	-.3172		.0080

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1213

ARC11-G231A80 CTS(SRB=N ORB NO.2 OUTLET BASE

(RE4HB0) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -4.013 BETA (1) = .006 MACH = .60070 RN/L = 3.5069 PO = 2116.2 P = 1658.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3679	-.2952	-.3123	-.3857	-.7329	-.8639	
45.000			-.3757				
90.000		-.3812	-.4233	-.4390	-.6274	-.8156	
135.000			-.3716	-.4159	-.6412		.2169
180.000		-.3557	-.3745	-.3818	-.4525	-.7056	
225.000					-.7553		.1426
270.000	-.3468	-.3443	-.3592			-.6797	
315.000			-.3565	-.3652	-.5256		-.5828

ALPHA (2) = -.271 BETA (1) = -4.006 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3701	-.3016	-.3227	-.3515	-.6848	-.9303	
45.000			-.3833				
90.000		-.3679	-.4564	-.5143	-.5940	-.8191	
135.000			-.3916	-.4139	-.6848		.3149
180.000		-.3621	-.3981	-.4211	-.4689	-.7457	
225.000					-.7184		.0592
270.000	-.3548	-.3429	-.3611			-.6523	
315.000			-.3597	-.3655	-.5145		-.6245

ALPHA (2) = -.310 BETA (2) = .003 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3369	-.2798	-.3050	-.3408	-.7127	-.8698	
45.000			-.3654				
90.000		-.3714	-.4222	-.4263	-.5926	-.7659	
135.000			-.3732	-.4016	-.6543		.2469
180.000		-.3434	-.3732	-.3671	-.4641	-.6916	
225.000					-.7494		.1845

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB0)

ALPHA (2) = -.310 BETA (2) = .003

SECTION (1)EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.3275	-.3383	-.3560				-.6657	
315.000			-.3381	-.3361	-.4608			-.5782

ALPHA (2) = -.310 BETA (3) = 4.025 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1)EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3705	-.3083	-.3209	-.3411	-.6898	-.9191		
45.000			-.3641					
90.000		-.3693	-.4002	-.4071	-.5877	-.7888		
135.000			-.3700	-.4013	-.5422		.0470	
180.000		-.3415	-.3786	-.3810	-.4777	-.7215		
225.000					-.7811		.2191	
270.000	-.3541	-.3464	-.3782			-.7410		
315.000			-.3690	-.3769	-.4689		-.6022	

ALPHA (3) = 3.930 BETA (1) = .009 MACH = .59910 RN/L = 3.4923 PO = 2115.4 P = 1659.7

SECTION (1)EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3503	-.2879	-.2999	-.3462	-.7225	-.8941		
45.000			-.3707					
90.000		-.3585	-.4240	-.4607	-.5484	-.7191		
135.000			-.3726	-.4208	-.6618		.2837	
180.000		-.3442	-.3688	-.3782	-.4501	-.7063		
225.000					-.7610		.2388	
270.000	-.3364	-.3309	-.3316			-.6517		
315.000			-.3421	-.3500	-.4536		-.5518	

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -4.069 BETA (1) = .009 MACH = .90080 RN/L = 4.2148 PO = 2109.8 P = 1246.4

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-4.020	-.4159	-.4309	-.4355	-.4759	-.7128	
45.000			-.4735				
90.000		-.4073	-.4627	-.4889	-.6086	-.8487	
135.000			-.4280	-.4830	-.6406		.2578
180.000		-.3912	-.4205	-.4125	-.4994	-.6719	
225.000					-.7445		.2571
270.000	-.4045	-.4041	-.4198			-.6711	
315.000			-.4629	-.5298	-.6839		-.4393

ALPHA (2) = -.304 BETA (1) = -4.006 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3979	-.3999	-.4208	-.4260	-.4598	-.6974	
45.000			-.4375				
90.000		-.3950	-.4420	-.5187	-.5753	-.8862	
135.000			-.3925	-.4342	-.6900		.4723
180.000		-.3882	-.4002	-.4245	-.5420	-.8456	
225.000					-.7128		.1442
270.000	-.4037	-.3939	-.4077			-.6432	
315.000			-.4722	-.5548	-.6783		-.4167

ALPHA (2) = -.317 BETA (2) = .003 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3717	-.3737	-.4218	-.4105	-.5000	-.6659	
45.000			-.4648				
90.000		-.4051	-.4515	-.4751	-.5947	-.8303	
135.000			-.4286	-.4980	-.6626		.3638
180.000		-.3757	-.3980	-.3786	-.4976	-.6576	
225.000					-.7071		.3403

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC:1-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB1)

ALPHA (2) = -.317 BETA (2) = .003

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3771	-.3992	-.3974			-.6017	
315.000			-.4207	-.4559	-.6948		-.3990

ALPHA (2) = -.357 BETA (3) = 4.025 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3972		-.3950	-.4122	-.4274	-.4574	-.6868	
45.000				-.4511				
90.000			-.3658	-.4023	-.4091	-.5463	-.8287	
135.000				-.4082	-.4221	-.5628		.0717
180.000			-.4053	-.4148	-.4331	-.5138	-.7667	
225.000						-.7639		.3355
270.000	-.3975	-.3843	-.3935				-.5441	
315.000			-.3999	-.4410	-.6304			-.4201

ALPHA (3) = 3.986 BETA (1) = .019 MACH = .90670 RN/L = 4.2222 PO = 2109.8 P = 1238.4

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3759		-.3691	-.4079	-.4148	-.4806	-.6664	
45.000				-.4154				
90.000			-.3877	-.4152	-.4489	-.5827	-.8515	
135.000				-.4331	-.5203	-.6724		.4239
180.000			-.3665	-.3938	-.3718	-.4789	-.6521	
225.000						-.6810		.3757
270.000	-.3707	-.3843	-.3852				-.4932	
315.000			-.4000	-.4080	-.6072			-.4099

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.100

PHI (1) = -3.973 BETA (1) = -.009 MACH = 1.0946 RN/L = 4.3814 PO = 2106.2 P = 993.13

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4129		-.4177	-.4692	-.5189	-.6483	-.3094	
45.000				-.4795				
90.000			-.4459	-.4582	-.4546	-.4605	-.4616	
135.000				-.4586	-.4735	-.5740		.3040
180.000			-.4256	-.4435	-.5002	-.5428	-.7675	
225.000						-.5988		.2975
270.000	-.4309	-.4447	-.4574				-.4607	
315.000			-.4827	-.5004	-.6263			-.0807

ALPHA (2) = -.393 BETA (1) = -.4006 MACH = 1.0958 RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.4026		-.4292	-.4430	-.4625	-.5709	-.3331	
45.000				-.4617				
90.000			-.4324	-.4502	-.4624	-.4857	-.6669	
135.000				-.4499	-.4788	-.6247		.5786
180.000			-.4028	-.4099	-.4279	-.5504	-.7120	
225.000						-.5299		.2312
270.000	-.4145	-.4256	-.4518				-.4559	
315.000			-.4711	-.4940	-.6152			-.0683

ALPHA (2) = -.340 BETA (2) = -.016 MACH = 1.0958 RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3834		-.3961	-.4263	-.4676	-.6126	-.3239	
45.000				-.4207				
90.000			-.4152	-.4326	-.4659	-.4916	-.5659	
135.000				-.4222	-.4413	-.5632		.3807
180.000			-.4048	-.4207	-.4834	-.5204	-.7525	
225.000					-.5899			.3787

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUTLET BASE

(RE4HB2)

ALPHA (2) = -.340 BETA (2) = -.016

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3913	-.4024	-.4270			-.5469	
315.000			-.4220	-.4499	-.5496		-.0835

ALPHA (2) = -.357 BETA (3) = 4.016 MACH = 1.0958 RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4307		-.4429	-.4572	-.4701	-.5712	-.3440
45.000				-.4687			
90.000			-.4422	-.4589	-.4620	-.4736	-.4692
135.000				-.4534	-.4785	-.5323	.2035
180.000			-.4312	-.4414	-.5113	-.6646	-.8516
225.000						-.5875	.4568
270.000	-.4372	-.4400	-.4531			-.6514	
315.000			-.5151	-.5441	-.6505		-.1257

ALPHA (3) = 4.026 BETA (1) = -.016 MACH = 1.1011 RN/L = 4.3891 PO = 2106.2 P = 985.19

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4154		-.4198	-.4381	-.4689	-.6029	-.3259
45.000				-.4788			
90.000			-.4261	-.4381	-.4427	-.4580	-.6874
135.000				-.4360	-.4718	-.5818	.4392
180.000			-.4360	-.4355	-.4810	-.5234	-.8032
225.000						-.5741	.3422
270.000	-.4159	-.4196	-.4495			-.5719	
315.000			-.4747	-.5087	-.6588		-.1316

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.947 BETA (1) = -.003 MACH = 1.2463 RN/L = 4.4021 PO = 2107.0 P = 817.37

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3180 - .3228 - .3820 - .4484 - .4957 - .1458
 45.000 - .3971
 90.000 - .3322 - .3380 - .3377 - .3511 - .5003
 135.000 - .3319 - .3677 - .4725 .3929
 180.000 - .3367 - .3815 - .4024 - .4171 - .5722
 225.000 - .4869 .3224
 270.000 - .3170 - .3126 - .3502 - .5059
 315.000 - .3852 - .4173 - .5217 - .0340

ALPHA (2) = -.400 BETA (1) = -4.000 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .3061 - .3160 - .3537 - .3902 - .5025 - .1936
 45.000 - .3645
 90.000 - .3342 - .3471 - .3515 - .3590 - .4982
 135.000 - .3450 - .3793 - .4443 .6283
 180.000 - .3163 - .3270 - .3388 - .3891 - .4419
 225.000 - .4257 .2448
 270.000 - .2925 - .2928 - .3487 - .5229
 315.000 - .4028 - .4235 - .4957 - .0176

ALPHA (2) = -.370 BETA (2) = -.009 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
 .000 - .2933 - .2905 - .3452 - .4097 - .4885 - .1489
 45.000 - .3882
 90.000 - .2989 - .3075 - .3060 - .3216 - .4904
 135.000 - .3168 - .3618 - .4680 .4583
 180.000 - .3249 - .3590 - .4034 - .3957 - .5309
 225.000 - .4541 .3750

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB3)

ALPHA (2) = -.370 BETA (2) = -.009

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.2890	-.2849	-.3298			-.5208		
315.000			-.4137	-.4408	-.5339		-.0107	

ALPHA (2) = -.420 BETA (3) = 4.019 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3076	-.3188	-.3475	-.3816	-.4958	-.1935		
45.000			-.4100					
90.000		-.3064	-.3320	-.3163	-.3880	-.5129		
135.000			-.3195	-.3647	-.4241		.1735	
180.000		-.3076	-.3451	-.3840	-.4519	-.6029		
225.000					-.4201		.4612	
270.000	-.3125	-.3177	-.3584			-.4545		
315.000			-.4041	-.4872	-.5558		-.0209	

ALPHA (3) = 3.986 BETA (1) = -.012 MACH = 1.2457 RN/L = 4.4005 PO = 2107.7 P = 818.39

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.2930	-.2850	-.3303	-.3528	-.4619	-.1826		
45.000			-.3804					
90.000		-.2959	-.3085	-.3124	-.3349	-.4612		
135.000			-.3127	-.3384	-.4342		.4913	
180.000		-.3320	-.3470	-.3940	-.4042	-.5671		
225.000					-.4343		.3858	
270.000	-.2905	-.2872	-.3291			-.4285		
315.000			-.3711	-.4965	-.5562		-.0178	

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASIC

(RE4HB4) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.957 BETA (1) = -.003 MACH = 1.4002 RN/L = 4.3550 PO = 2109.8 P = 662.79

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2506		-.2424	-.2694	-.2772	-.3517	-.1914	
45.000				-.2707				
90.000			-.2603	-.2610	-.2582	-.2616	-.4010	
135.000				-.2840	-.3385	-.3982		.4207
180.000			-.2826	-.3064	-.3369	-.3413	-.4539	
225.000						-.3951		.3151
270.000	-.2529	-.2614	-.2946				-.4036	
315.000			-.2977	-.3363	-.4058			-.0721

ALPHA (2) = -.443 BETA (1) = -4.000 MACH = 1.3986 RN/L = 4.3450 PO = 2109.6 P = 664.22

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2461		-.2297	-.2612	-.2833	-.3613	-.1651	
45.000				-.2642				
90.000			-.2914	-.2914	-.2861	-.2865	-.3595	
135.000				-.3561	-.3508	-.2782		.5606
180.000			-.2568	-.2702	-.2839	-.3236	-.3645	
225.000						-.3032		.2363
270.000	-.2256	-.2379	-.2556				-.3474	
315.000			-.2570	-.3165	-.3871			-.0453

ALPHA (2) = -.406 BETA (2) = -.006 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22

SECTION (1) EXTERNAL TANK BASE		DEPENDENT VARIABLE CP						
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2416		-.2201	-.2502	-.2745	-.3542	-.1771	
45.000				-.2554				
90.000			-.2587	-.2598	-.2556	-.2595	-.4034	
135.000				-.2795	-.3172	-.3857		.5244
180.000			-.2686	-.2907	-.3526	-.3443	-.4318	
225.000						-.3543		.3536

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)ET BASE

(RE4HB4)

ALPHA (2) = -.406 BETA (2) = -.006

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.2412	-.2463	-.2835			-.4155	
315.000			-.2534	-.3125	-.3876		-.0466

ALPHA (2) = -.446 BETA (3) = 4.019 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2484		-.2715	-.2880	-.3719	-.1631	
45.000			-.2880				
90.000		-.2484	-.2490	-.2550	-.3566		
135.000			-.2802	-.3215		.1904	
180.000			-.3311	-.3534	-.4740		
225.000				-.3011		.4365	
270.000					-.3825		
315.000			-.2891	-.3945		-.0495	

ALPHA (3) = 3.953 BETA (1) = -.009 MACH = 1.3971 RN/L = 4.3340 PO = 2109.8 P = 665.69

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2291		-.2287	-.2795	-.3134	-.3893	-.0733
45.000			-.2770				
90.000		-.2404	-.2522	-.2636	-.2689	-.4100	
135.000			-.2771	-.3300	-.3455		.5092
180.000		-.2536	-.2597	-.3497	-.3180	-.4251	
225.000					-.3244		.3929
270.000	-.2250	-.2325	-.2561			-.3967	
315.000			-.2625	-.3767	-.3799		.0498

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.) OUT)ET BASE

(RE4HB5) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
 RN/L = 3.400 MACH = .600

ALPHA (1) = -4.072 BETA (1) = .012 MACH = .58560 RN/L = 3.4206 PO = 2115.4 P = 1677.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-4.164		-.3534	-.3182	-.4239	-.7368	-.9088	
45.000				-.3839				
90.000			-.3737	-.4302	-.4917	-.6216	-.8528	
135.000				-.3977	-.4769	-.6474		.2027
180.000			-.3543	-.3956	-.4412	-.4611	-.7451	
225.000						-.7601		.1165
270.000		-.4100	-.3486	-.3917			-.7388	
315.000				-.3984	-.4355	-.5187		-.6219

ALPHA (2) = -.284 BETA (1) = -4.003 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.498		-.2801	-.3049	-.3320	-.6672	-.9005	
45.000				-.3767				
90.000			-.3564	-.4458	-.4888	-.5755	-.7870	
135.000				-.3771	-.4008	-.6688		.3239
180.000			-.3473	-.3801	-.4008	-.4486	-.7173	
225.000						-.6915		.0773
270.000		-.3346	-.3297	-.3473			-.6386	
315.000				-.3402	-.3435	-.4990		-.6093

ALPHA (2) = -.337 BETA (2) = .003 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-3.581		-.2900	-.3015	-.3495	-.7000	-.8740	
45.000				-.3606				
90.000			-.3596	-.4177	-.4369	-.5906	-.7709	
135.000				-.3734	-.4346	-.6413		.2464
180.000			-.3451	-.3677	-.3822	-.4552	-.7057	
225.000						-.7419		.1747

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ARC11-0231AB0 OTS(SRB=N ORB NO.1 OUTLET BASE

(RE4HB5)

ALPHA (2) = -.337 BETA (2) = .003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
270.000	-.3484	-.3299	-.3505			-.6896		
315.000			-.3424	-.3573	-.4522		-.5835	

ALPHA (2) = -.367 BETA (3) = 4.025 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3422		-.2857	-.2994	-.3233	-.6594	-.8926	
45.000				-.3424				
90.000			-.3468	-.3701	-.3943	-.5630	-.7536	
135.000				-.3458	-.3670	-.5316		.0560
180.000			-.3238	-.3576	-.3500	-.4535	-.6898	
225.000						-.7517		.2295
270.000	-.3294	-.3333	-.3532				-.7207	
315.000			-.3471	-.3463	-.4496			-.5877

ALPHA (3) = 3.868 BETA (1) = .006 MACH = .59730 RN/L = 3.4653 PO = 2114.7 P = 1661.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI								
.000	-.3504		-.2792	-.2941	-.3393	-.7059	-.8923	
45.000				-.3613				
90.000			-.3565	-.4205	-.4552	-.5501	-.7141	
135.000				-.3681	-.4288	-.6525		.2839
180.000			-.3414	-.3623	-.3760	-.4556	-.6957	
225.000						-.7563		.2360
270.000	-.3330	-.3256	-.3287				-.6449	
315.000			-.3448	-.3400	-.3432			-.5525

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)E1 BASE

(RE4HB6) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -4.013 BETA (1) = .009 MACH = .89890 RN/L = 4.2040 PO = 2109.8 P = 1249.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3932		-.3971	-.4218	-.4357	-.4526	-.7150	
45.000				-.4599				
90.000			-.3870	-.4409	-.4707	-.5755	-.8459	
135.000				-.4128	-.4709	-.6143		.2545
180.000			-.3660	-.3906	-.4097	-.4776	-.6465	
225.000						-.7249		.2533
270.000	-.3920	-.3900	-.4013				-.6535	
315.000			-.4470	-.5026	-.6655			-.4424

ALPHA (2) = -.317 BETA (1) = -4.003 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3947		-.3935	-.4082	-.4209	-.4490	-.6907	
45.000				-.4199				
90.000			-.3899	-.4289	-.5028	-.5548	-.8649	
135.000				-.3752	-.4269	-.6660		.4747
180.000			-.3694	-.3893	-.4184	-.5307	-.8750	
225.000						-.6940		.1487
270.000	-.4003	-.3849	-.4006				-.6301	
315.000			-.4638	-.5511	-.6624			-.4107

ALPHA (2) = -.310 BETA (2) = .003 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3751		-.3755	-.4036	-.4087	-.4662	-.6909	
45.000				-.4293				
90.000			-.3796	-.4241	-.4653	-.5624	-.8005	
135.000				-.4137	-.4934	-.6438		.3601
180.000			-.3529	-.3872	-.3799	-.4740	-.6327	
225.000						-.6880		.3286

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TABULATED SOURCE DATA - IABO

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ARC11-0231A80 OTJ LNB=N ORB NO.1 OUTLET BASE

(RE4HB6)

ALPHA (2) = -.310 BETA (2) = .003

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3765	-.3839	-.3849			-.6077	
315.000			-.4093	-.4412	-.6626		-.4200

ALPHA (2) = -.340 BETA (3) = 4.025 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3782		-.3814	-.4006	-.4125	-.4411	-.6834
45.000				-.4548			
90.000			-.3605	-.3896	-.3972	-.5452	-.8233
135.000				-.3950	-.4131	-.5517	.0751
180.000			-.4045	-.3900	-.4235	-.5071	-.7425
225.000					-.7438		.3403
270.000	-.3828	-.3856	-.3728			-.5209	
315.000			-.3940	-.4289	-.5899		-.4156

ALPHA (3) = 3.854 BETA (1) = .009 MACH = .90130 RN/L = 4.2066 PO = 2109.1 P = 1245.3

SECTION (1)EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3704		-.3618	-.3959	-.4049	-.4632	-.6916
45.000				-.4045			
90.000			-.3728	-.4021	-.4474	-.5583	-.8207
135.000				-.4180	-.5043	-.6558	.4223
180.000			-.3501	-.3744	-.3738	-.4676	-.6216
225.000						-.6630	.3678
270.000	-.3708	-.3746	-.3758			-.4889	
315.000			-.3846	-.4051	-.5715		-.4167

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TABULATED SOURCE DATA - 1A80

PAGE 1227

ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET BASE

(RE4HB7) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.003 BETA (1) = -.012 MACH = 1.0992 RN/L = 4.3803 PO = 2102.7 P = 985.74

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3791		-.3804	-.4334	-.4812	-.6206	-.2992	
45.000				-.4428				
90.000			-.4092	-.4106	-.4079	-.4206	-.4499	
135.000				-.4154	-.4317	-.5397		.2944
180.000			-.3853	-.4209	-.4687	-.5158	-.6900	
225.000						-.5698		.2955
270.000	-.3903	-.4046	-.4192				-.4446	
315.000			-.4478	-.4687	-.5987			-.0738

ALPHA (2) = -.393 BETA (1) = -4.006 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3753		-.4022	-.4177	-.4319	-.5438	-.3276	
45.000				-.4365				
90.000			-.4065	-.4209	-.4360	-.4673	-.6540	
135.000				-.4295	-.4555	-.6101		.5738
180.000			-.3821	-.3907	-.4071	-.5190	-.6737	
225.000						-.5156		.2283
270.000	-.3896	-.4026	-.4280				-.4480	
315.000			-.4497	-.4711	-.5940			-.0549

ALPHA (2) = -.347 BETA (2) = -.019 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3456		-.3566	-.3921	-.4263	-.5836	-.3087	
45.000				-.3858				
90.000			-.3654	-.3896	-.4006	-.4799	-.5305	
135.000				-.3812	-.4028	-.5325		.3843
180.000			-.3615	-.3875	-.4447	-.4877	-.6831	
225.000						-.5673		.3904

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TABULATED SOURCE DATA - IA80

PAGE 1228

ARC11-023IA80 OTS(SRB=N ORB NO.1 OUT.ET BASE

(RE4HB7)

ALPHA (2) = -.347 BETA (2) = -.019

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

270.000	-.3518	-.3595	-.3823			-.5234	
315.000			-.4501	-.4284	-.5372		-.0741

ALPHA (2) = -.383 BETA (3) = 4.012 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3793		-.3878	-.3996	-.4133	-.5099	-.3215	
45.000				-.4133				
90.000			-.3877	-.4003	-.4056	-.4183	-.4455	
135.000				-.4025	-.4391	-.4978		.2043
180.000			-.3817	-.3991	-.4654	-.6199	-.8015	
225.000						-.5372		.4456
270.000	-.3826	-.3845	-.3993				-.5980	
315.000			-.4606	-.4792	-.5885			-.1014

ALPHA (3) = 4.049 BETA (1) = -.012 MACH = 1.1075 RN/L = 4.3346 PO = 2102.7 P = 975.68

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3849		-.3895	-.4094	-.4366	-.5682	-.3195	
45.000				-.4422				
90.000			-.3950	-.4092	-.4206	-.4443	-.6712	
135.000				-.4065	-.4445	-.5537		.4397
180.000			-.4075	-.4102	-.4632	-.4998	-.7648	
225.000						-.5547		.3445
270.000	-.3878	-.3881	-.4187				-.5344	
315.000			-.4533	-.4845	-.6380			-.1275

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N) ORB NO.1 OUTLET BASE

(RE4HB8) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-18 = .000 ELV-08 = .000
 RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.914 BETA (1) = -.009 MACH = 1.2513 RN/L = 4.3952 PO = 2104.1 P = 810.95

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2955		-.3027	-.3538	-.4250	-.4987	-.1464	
45.000				-.3710				
90.000			-.3151	-.3249	-.3260	-.3350	-.4942	
135.000				-.3160	-.3435	-.4489		.3942
180.000			-.3052	-.3501	-.3610	-.3901	-.5341	
225.000						-.4712		.3200
270.000	-.2946	-.2924	-.3276				-.4960	
315.000			-.3721	-.3940	-.5118			-.0297

ALPHA (2) = -.353 BETA (1) = -4.006 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2902		-.3002	-.3399	-.3759	-.4917	-.1853	
45.000				-.3386				
90.000			-.3227	-.3328	-.3399	-.3482	-.4893	
135.000				-.3331	-.3587	-.4261		.6255
180.000			-.3043	-.3161	-.3317	-.3931	-.4464	
225.000						-.4184		.2436
270.000	-.2772	-.2796	-.3335				-.5083	
315.000			-.3999	-.4131	-.4898			-.0162

ALPHA (2) = -.367 BETA (2) = -.016 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2767		-.2739	-.3292	-.3898	-.4835	-.1483	
45.000				-.3632				
90.000			-.2831	-.2942	-.2889	-.3083	-.4914	
135.000				-.2953	-.3443	-.4585		.4598
180.000			-.3148	-.3525	-.3804	-.3790	-.5065	
225.000						-.4563		.3708

ORIGINAL PAGE IS
OF POOR QUALITY

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TABULATED SOURCE DATA - 1A80

PAGE 1230

ARC11-0231A80 OTS(SRB=N ORB NO.1 OUTLET BASE

(RE4HBB)

ALPHA (2) = -.367 BETA (2) = -.016

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000

PHI							
270.000	-.2745	-.2715	-.3113			-.5164	
315.000			-.3989	-.4305	-.5329		-.0102

ALPHA (2) = -.393 BETA (3) = 4.016 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000

PHI							
.000	-.2871		-.2995	-.3303	-.3657	-.4825	-.1892
45.000				-.3929			
90.000			-.2934	-.2998	-.3226	-.3148	-.5082
135.000				-.3023	-.3382	-.4032	.1749
180.000			-.2931	-.3363	-.3704	-.4364	-.5886
225.000					-.4059		.4657
270.000	-.2966	-.2951	-.3422			-.4465	
315.000			-.3532	-.4784	-.5485		-.0157

ALPHA (3) = 4.053 BETA (1) = -.012 MACH = 1.2485 RN/L = 4.3917 PO = 2104.1 P = 813.89

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000

PHI							
.000	-.2790		-.2707	-.3176	-.3406	-.4508	-.1814
45.000				-.3595			
90.000			-.2853	-.2970	-.3036	-.3225	-.4803
135.000				-.2972	-.3252	-.4150	.4780
180.000			-.3184	-.3421	-.3789	-.3800	-.5475
225.000					-.4263		.3805
270.000	-.2785	-.2753	-.3155			-.4197	
315.000			-.3336	-.4805	-.5506		-.0159

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET BASE

(RE4HB9) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.934 BETA (1) = -.009 MACH = 1.4069 RN/L = 4.3421 PO = 2107.0 P = 655.71

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2300	-.2165	-.2375	-.2524	-.3284	-.1839	
45.000			-.2406				
90.000		-.2364	-.2400	-.2396	-.2402	-.3964	
135.000			-.2556	-.3029	-.3721		.4269
180.000		-.2527	-.2880	-.3307	-.3320	-.4211	
225.000					-.3817		.3185
270.000	-.2318	-.2384	-.2673			-.3978	
315.000			-.2631	-.3185	-.3930		-.0704

ALPHA (2) = -.426 BETA (1) = -.006 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2256	-.2070	-.2273	-.2485	-.3365	-.1629	
45.000			-.2452				
90.000		-.2702	-.2653	-.2643	-.2599	-.3551	
135.000			-.3287	-.3349	-.2707		.5646
180.000		-.2449	-.2520	-.2614	-.2942	-.3371	
225.000					-.3206		.2327
270.000	-.2186	-.2206	-.2671			-.3402	
315.000			-.2512	-.3067	-.3977		-.0462

ALPHA (2) = -.383 BETA (2) = -.016 MACH = 1.4058 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.2168	-.1950	-.2204	-.2426	-.3280	-.1748	
45.000			-.2292				
90.000		-.2317	-.2351	-.2322	-.2345	-.3957	
135.000			-.2562	-.2945	-.3668		.5275
180.000		-.2394	-.2735	-.3326	-.3114	-.4060	
225.000					-.3433		.3580

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)ET BASE

(RE4HB9)

ALPHA (2) = -.383 BETA (2) = -.016

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
270.000		-.2180	-.2230	-.2547			-.3977	
315.000				-.2241	-.2651	-.3751		-.0495

ALPHA (2) = -.436 BETA (3) = 4.016 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2261		-.2311	-.2477	-.2573	-.3470	-.1618	
45.000				-.2598				
90.000			-.2291	-.2313	-.2294	-.2311	-.3502	
135.000				-.2351	-.2609	-.3081		.1925
180.000			-.2193	-.2606	-.3121	-.3448	-.4566	
225.000						-.2903		.4359
270.000	-.2394	-.2380		-.2676			-.3734	
315.000				-.2257	-.2447	-.3763		-.0516

ALPHA (3) = 4.046 BETA (1) = -.012 MACH = 1.4068 RN/L = 4.3293 PO = 2108.4 P = 655.24

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP				
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.2059		-.1967	-.2534	-.2811	-.3739	-.0664	
45.000				-.2337				
90.000			-.2080	-.2333	-.2772	-.3071	-.4002	
135.000				-.2644	-.3146	-.3422		.5099
180.000			-.2190	-.2509	-.2973	-.2652	-.3791	
225.000						-.3183		.3974
270.000	-.1998	-.2006		-.2294			-.3793	
315.000				-.2183	-.3050	-.3414		.0371

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET BASE

(RE4HC0) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

ELV-18 = .000 ELV-08 = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -4.029 BETA (1) = .016 MACH = .89710 RN/L = 4.2461 PO = 2124.6 P = 1260.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3723	-.2991	-.2725	-.2829	-.2622	.4031	
45.000			-.2945				
90.000		-.3316	-.3215	-.3475	-.4887	-.7133	
135.000			-.3777	-.4598	-.6376		.2553
180.000		-.3932	-.3799	-.4093	-.4597	-.6308	
225.000					-.6707		.2558
270.000	-.3727	-.3417	-.3719			-.6621	
315.000			-.3120	-.3168	-.2930		.2857

ALPHA (2) = -.241 BETA (1) = -4.009 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3359	-.3067	-.3050	-.2944	-.2933	.4140	
45.000			-.3248				
90.000		-.3427	-.4057	-.4358	-.5006	-.8288	
135.000			-.4628	-.4935	-.7095		.4739
180.000		-.3615	-.3617	-.3939	-.4833	-.5818	
225.000					-.6036		.1604
270.000	-.3244	-.3328	-.3617			-.5943	
315.000			-.2948	-.2966	-.2933		.3557

ALPHA (2) = -.264 BETA (2) = -.003 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.3539	-.2785	-.2737	-.2670	-.2599	.4057	
45.000			-.2831				
90.000		-.3274	-.3258	-.3403	-.4972	-.7438	
135.000			-.3922	-.5025	-.6771		.3660
180.000		-.3840	-.3708	-.3873	-.4664	-.6246	
225.000					-.6623		.3445

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET BASE

(RE4HCO)

ALPHA (2) = -.264 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
270.000		-.3529	-.3470	-.3890			-.6498
315.000				-.3000	-.2974	-.2855	.3084

ALPHA (2) = -.291 BETA (3) = 4.022 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3073		-.2898	-.2903	-.2789	-.2880	.4136
45.000				-.2879			
90.000			-.3036	-.3093	-.3172	-.4609	-.6098
135.000				-.3308	-.3624	-.5058	.0941
180.000			-.3471	-.3516	-.3568	-.4689	-.6944
225.000						-.7120	.3521
270.000	-.3321	-.3282	-.3588			-.5489	
315.000			-.3059	-.2981	-.2943		.3159

ALPHA (3) = 3.980 BETA (1) = .016 MACH = .90820 RN/L = 4.2637 PO = 2123.2 P = 1244.2

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000
PHI							
.000	-.3334		-.2762	-.2690	-.2576	-.2629	.4272
45.000				-.2847			
90.000			-.3144	-.3517	-.3791	-.4868	-.7377
135.000				-.4128	-.5028	-.6981	.4325
180.000			-.3678	-.3674	-.3713	-.4699	-.6234
225.000						-.6530	.3936
270.000	-.3355	-.3366	-.3688			-.5666	
315.000			-.2954	-.2988	-.2914		.2593

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET BASE

(RE4HC1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.000 BETA (1) = .012 MACH = 1.1039 RN/L = 4.4630 PO = 2123.2 P = 989.56

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4441	-.4200	-.4157	-.4128	-.4085	-.4231	
45.000			-.4135				
90.000		-.4278	-.4359	-.4562	-.5447	-.4116	
135.000			-.4728	-.4941	-.5888		.3137
180.000		-.4794	-.4731	-.5158	-.5965	-.8056	
225.000					-.6327		.3060
270.000	-.4462	-.4432	-.4515			-.4180	
315.000			-.4229	-.4244	-.4166		.4552

ALPHA (2) = -.264 BETA (1) = -.4009 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4567	-.4618	-.4539	-.4517	-.4490	-.5651	
45.000			-.4727				
90.000		-.4782	-.5094	-.5312	-.6483	-.5638	
135.000			-.5107	-.5336	-.6675		.5822
180.000		-.4603	-.4613	-.4860	-.5927	-.7513	
225.000					-.6190		.2327
270.000	-.4470	-.4348	-.4436			-.4365	
315.000			-.4442	-.4400	-.4379		.5310

ALPHA (2) = -.284 BETA (2) = .000 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4439	-.4236	-.4193	-.4168	-.4132	-.5101	
45.000			-.4246				
90.000		-.4413	-.4455	-.4411	-.6303	-.3924	
135.000			-.4963	-.5005	-.5976		.3776
180.000		-.4681	-.4614	-.4921	-.6106	-.8485	
225.000					-.6254		.3921

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TABULATED SOURCE DATA - IAB0

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)ET BASE

(RE4HC1)

ALPHA (2) = -.284 BETA (2) = .000

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000

PHI							
270.000		-.4471	-.4443	-.4465		-.4114	
315.000				-.4276	-.4254	-.4231	.5208

ALPHA (2) = -.297 BETA (3) = 4.022 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000

PHI							
.000	.4534		-.4544	-.4503	-.4475	-.4444	.5848
45.000				-.4411			
90.000			-.4246	-.4406	-.4598	-.5697	-.4420
135.000				-.4805	-.5230	-.5756	.2237
180.000			-.4489	-.4496	-.4567	-.5872	.0000
225.000						-.5912	.4796
270.000	-.4561	-.4492	-.4739			-.5895	
315.000			-.4752	-.4588	-.4648		.4683

ALPHA (3) = 3.910 BETA (1) = .016 MACH = 1.1026 RN/L = 4.4864 PO = 2123.9 P = 991.59

SECTION (1) EXTERNAL TANK BASE				DEPENDENT VARIABLE CP			
R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890 1.0000

PHI							
.000	-.4389		-.4258	-.4206	-.4194	-.4143	.5354
45.000				-.4218			
90.000			-.4478	-.4544	-.5212	-.6757	-.6207
135.000				-.5145	-.5263	-.6164	.4401
180.000			-.4993	-.4878	-.5496	-.6419	.0000
225.000						-.5989	.3505
270.000	-.4663	-.4640	-.4887			-.6051	
315.000			-.4459	-.4434	-.4387		.3895

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)ET BASE

(RE4HC2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
 RN/L = 4.250 MACH = .900

ALPHA (1) = -3.996 BETA (1) = .016 MACH = .90230 RN/L = 4.2244 PO = 2111.2 P = 1245.1

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3026		-.2845	-.2850	-.2740	-.2826	.4117	
45.000				-.2981				
90.000			-.3416	-.3314	-.3254	-.4844	-.6920	
135.000				-.3608	-.4122	-.6092		.2628
180.000			-.3685	-.3630	-.3893	-.4358	-.5943	
225.000						-.6457		.2656
270.000	-.3386	-.3436	-.3347				-.6284	
315.000			-.2961	-.2772	-.2788			.2887

ALPHA (2) = -.284 BETA (1) = -4.012 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3259		-.3064	-.3020	-.2991	-.2969	.4072	
45.000				-.3180				
90.000			-.3397	-.4082	-.4415	-.4895	-.6245	
135.000				-.4890	-.5028	-.7385		.4711
180.000			-.3729	-.3863	-.3957	-.4901	-.7715	
225.000						-.6347		.1492
270.000	-.3658	-.3607	-.3825				-.6410	
315.000			-.3261	-.3165	-.3184			.3414

ALPHA (2) = -.360 BETA (2) = -.003 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD	.0000	.4500	.6350	.8400	.8950	.9460	.9890	1.0000
PHI								
.000	-.3385		-.2780	-.3015	-.2760	-.2890	.4099	
45.000				-.3136				
90.000			-.3506	-.3345	-.3481	-.5414	-.7582	
135.000				-.4372	-.5411	-.7013		.3575
180.000			-.3942	-.4420	-.4042	-.4924	-.6542	
225.000						-.6913		.3439

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)ET BASE

(RE4HC2)

ALPHA (2) = -.360 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
270.000 -.3582 -.3586 -.3894 -.6431
315.000 -.3017 -.2274 -.2961 .3161

ALPHA (2) = -.330 BETA (3) = 4.019 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3288 -.3159 -.3106 -.3091 -.2958 .4026
45.000 -.3286
90.000 -.3504 -.3463 -.3571 -.5068 -.6624
135.000 -.3840 -.4110 -.5647 .0758
180.000 -.3706 -.3922 -.4146 -.4971 -.7303
225.000 -.7355 .3414
270.000 -.3548 -.3476 -.3765 -.5738
315.000 -.3347 -.3198 -.3185 .3071

ALPHA (3) = 3.927 BETA (1) = .012 MACH = .89920 RN/L = 4.2176 PO = 2110.5 P = 1249.0

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP
R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI
.000 -.3583 -.2838 -.2826 -.2713 -.2761 .4267
45.000 -.3036
90.000 -.3530 -.3589 -.3919 -.5340 -.7853
135.000 -.4768 -.5893 -.7331 .4216
180.000 -.4024 -.4126 -.4274 -.4820 -.6541
225.000 -.7104 .3811
270.000 -.3705 -.3609 -.3955 -.5820
315.000 -.3036 -.2930 -.2969 .2585

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)ET BASE

(RE4HC3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
 LREF = 1290.3000 IN. YMRP = .0000 IN.
 BREF = 1290.3000 IN. ZMRP = .0000 IN.
 SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
 RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.033 BETA (1) = .016 MACH = 1.1036 RN/L = 4.4660 PO = 2114.0 P = 985.75

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4211	-.3859	-.3832	-.3799	-.3766	.4265	
45.000			-.3767				
90.000		-.3940	-.3979	-.4183	-.5133	-.4118	
135.000			-.4344	-.4702	-.5733		.2977
180.000		-.4475	-.4671	-.4999	-.5711	-.7854	
225.000					-.6133		.2955
270.000	-.4201	-.4147	-.4218			-.4121	
315.000			-.3933	-.3888	-.3839		.4548

ALPHA (2) = -.433 BETA (1) = -4.009 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4297	-.4402	-.4328	-.4320	-.4271	.5644	
45.000			-.4526				
90.000		-.4415	-.4851	-.5086	-.5770	-.5889	
135.000			-.4792	-.5005	-.6406		.5808
180.000		-.4364	-.4364	-.4613	-.5868	-.7253	
225.000					-.6023		.2253
270.000	-.4251	-.4129	-.4196			-.4517	
315.000			-.4191	-.4179	-.4147		.5294

ALPHA (2) = -.446 BETA (2) = -.003 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1) EXTERNAL TANK BASE

DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI

.000	-.4059	-.3824	-.3723	-.3741	-.3694	.5156	
45.000			-.3757				
90.000		-.3929	-.4023	-.3981	-.5669	-.3591	
135.000			-.4547	-.4756	-.5849		.3913
180.000		-.4445	-.4465	-.4793	-.5126	-.7772	
225.000					-.5954		.3941

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)ET BASE

(RE4HC3)

ALPHA (2) = -.446 BETA (2) = -.003

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
270.000	-.4065	-.4016	-.4129			-.3989	
315.000			-.3842	-.3837	-.3770		.5123

ALPHA (2) = -.456 BETA (3) = 4.022 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.4311	-.4367	-.4357	-.4338	-.4297	.5839	
45.000			-.4243				
90.000		-.4132	-.4256	-.4524	-.5610	-.4418	
135.000			-.4567	-.5024	-.5610		.2036
180.000		-.4284	-.4348	-.5014	-.6822	-.8625	
225.000					-.5757		.4616
270.000	-.4452	-.4362	-.4620		-.5964		
315.000			-.4570	-.4495	-.4502		.4553

ALPHA (3) = 3.844 BETA (1) = .003 MACH = 1.1023 RN/L = 4.4653 PO = 2114.7 P = 987.65

SECTION (1) EXTERNAL TANK BASE DEPENDENT VARIABLE CP

R/ROD .0000 .4500 .6350 .8400 .8950 .9460 .9890 1.0000

PHI							
.000	-.4185	-.3981	-.3931	-.3906	-.3882	.5356	
45.000			-.3891				
90.000		-.4163	-.4255	-.4896	-.6368	-.6108	
135.000			-.4773	-.5058	-.6028		.4446
180.000		-.4638	-.4518	-.4948	-.5638	-.8124	
225.000					-.5855		.3461
270.000	-.4402	-.4358	-.4636		-.5781		
315.000			-.4207	-.4174	-.4130		.3902

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ CRB=N)

SRB SKIRT

(RE4101) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.013 BETA (1) = -.019 MACH = .59860 RN/L = 3.3812 PO = 2110.5 P = 1656.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3175
90.000 -.3442
180.000 -.3384
270.000 -.5249

ALPHA (2) = -.314 BETA (1) = -4.034 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3270
90.000 -.3187
180.000 -.3180
270.000 -.4828

ALPHA (2) = -.340 BETA (2) = -.019 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3228
90.000 -.3317
180.000 -.3345
270.000 -.5063

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4101)

ALPHA (2) = -.459 BETA (3) = 3.997 MACH = .59953 RN/L = 3.3878 PO = 2110.3 P = 1655.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3373
90.000 -.3653
180.000 -.3571
270.000 -.5035

ALPHA (3) = 4.039 BETA (1) = -.019 MACH = .59860 RN/L = 3.3874 PO = 2109.8 P = 1655.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3138
90.000 -.3244
180.000 -.3315
270.000 -.5028

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4102) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .3000 IN.
LREF = 1290.3000 IN. YMRP = .0090 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.901 BETA (1) = -.012 MACH = .90550 RN/L = 4.2328 PO = 2108.4 F = 1239.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2801
90.000 -.2825
180.000 -.2589
270.000 -.3405

ALPHA (2) = -.347 BETA (1) = -4.025 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2420
90.000 -.2509
180.000 -.2481
270.000 -.2699

ALPHA (2) = -.380 BETA (2) = -.009 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2315
90.000 -.2491
180.000 -.2327
270.000 -.3249

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TABULATED SOURCE DATA - 1A80

PAGE 1244

ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4102)

ALPHA (2) = -.456 BETA (3) = 4.003 MACH = .90060 RN/L = 4.2176 PO = 2106.2 P = 1244.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2901
90.000 -.2984
180.000 -.2746
270.000 -.3477

ALPHA (3) = 3.977 BETA (1) = -.009 MACH = .89810 RN/L = 4.2116 PO = 2105.5 P = 1247.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2525
90.000 -.2504
180.000 -.2498
270.000 -.3508

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4103) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.920 BETA (1) = -.003 MACH = 1.0986 RN/L = 4.3008 PO = 2109.8 P = 989.84

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2819
90.000 -.3036
180.000 -.2933
270.000 -.3882

ALPHA (2) = -.621 BETA (1) = -4.006 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2803
90.000 -.2886
180.000 -.2894
270.000 -.3631

ALPHA (2) = -.641 BETA (2) = .000 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2952
90.000 -.3141
180.000 -.3081
270.000 -.3759

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4103)

ALPHA (2) = -.492 BETA (3) = 4.009 MACH = 1.1024 RN/L = 4.3086 PO = 2109.6 P = 985.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3361
90.000 -.3611
180.000 -.3443
270.000 -.3791

ALPHA (3) = 3.944 BETA (1) = -.003 MACH = 1.1088 RN/L = 4.3102 PO = 2108.4 P = 976.70

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3211
90.000 -.3263
180.000 -.3224
270.000 -.4386

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ARC11-0231A80 OTS(SRB=N++ ORB=N) SRB SKIRT

(RE4104) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -4.165 BETA (1) = .000 MACH = 1.2595 RN/L = 4.4972 PO = 2140.2 P = 815.83

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1179
90.000 -.1333
180.000 -.1205
270.000 -.1736

ALPHA (2) = -.495 BETA (1) = -4.000 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1265
90.000 -.1476
180.000 -.1315
270.000 -.1425

ALPHA (2) = -.526 BETA (2) = .000 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1275
90.000 -.1492
180.000 -.1486
270.000 -.2029

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4104)

ALPHA (2) = -.555 BETA (3) = 4.006 MACH = 1.2534 RN/L = 4.4312 PO = 2113.5 P = 812.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1742
90.000 -.2009
180.000 -.1909
270.000 -.2132

ALPHA (3) = 3.831 BETA (1) = .006 MACH = 1.2464 RN/L = 4.4257 PO = 2113.3 P = 819.82

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1616
90.000 -.1820
180.000 -.1754
270.000 -.2497

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4105) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.950 BETA (1) = -.003 MACH = 1.4026 RN/L = 4.3103 PO = 2124.6 P = 665.23

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.0533
90.000 -.0557
180.000 -.0399
270.000 -.0644

ALPHA (2) = -.436 BETA (1) = -4.009 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.0223
90.000 -.0335
180.000 -.0365
270.000 -.0292

ALPHA (2) = -.482 BETA (2) = -.003 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.0487
90.000 -.0656
180.000 -.0602
270.000 -.0957

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ARC11-0231A80 OTS(SRB=N++ ORB=N)

SRB SKIRT

(RE4105)

ALPHA (2) = -.535 BETA (3) = 4.009 MACH = 1.4051 RN/L = 4.3040 PO = 2123.0 P = 662.38

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.0811
90.000 -.1066
180.000 -.1057
270.000 -.1226

ALPHA (3) = 3.881 BETA (1) = -.006 MACH = 1.4020 RN/L = 4.3020 PO = 2122.5 P = 665.10

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.0481
90.000 -.0733
180.000 -.0730
270.000 -.1170

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TABULATED SOURCE DATA - 1A80

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ARC11-0731A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4106) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.848 BETA (1) = -.019 MACH = .59810 RN/L = 3.3852 PO = 2109.1 P = 1656.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3645
90.000 -.3769
180.000 -.3690
270.000 -.5724

ALPHA (2) = -.350 BETA (1) = -4.038 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3490
90.000 -.3429
180.000 -.3349
270.000 -.5270

ALPHA (2) = -.314 BETA (2) = -.022 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3458
90.000 -.3584
180.000 -.3540
270.000 -.5539

DATE 23 JUL 76

TABULATED SOURCE DATA - IAB0

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ARC11-023IAB0 OTS/SRB=N+ ORB=N)

SRB SKIRT

(RE4106)

ALPHA (2) = -.396 BETA (3) = 3.997 MACH = .59800 RN/L = 3.3843 PO = 2108.4 P = 1655.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3759
90.000 -.4009
180.000 -.3905
270.000 -.5571

ALPHA (3) = 3.970 BETA (1) = -.022 MACH = .59820 RN/L = 3.3879 PO = 2107.7 P = 1654.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3465
90.000 -.3578
180.000 -.3601
270.000 -.5440

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

SRB SKIRT

(RE4107) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.930 BETA (1) = -.009 MACH = .89930 RN/L = 4.2036 PO = 2101.3 P = 1243.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3519
90.000 -.3645
180.000 -.3533
270.000 -.4614

ALPHA (2) = -.376 BETA (1) = -4.028 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3134
90.000 -.3239
180.000 -.3222
270.000 -.3931

ALPHA (2) = -.330 BETA (2) = -.012 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3543
90.000 -.3621
180.000 -.3601
270.000 -.4987

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4107)

ALPHA (2) = -.330 BETA (3) = 4.003 MACH = .90183 RN/L = 4.2093 PO = 2101.3 P = 1239.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4148
90.000 -.4206
180.000 -.4146
270.000 -.5496

ALPHA (3) = 3.927 BETA (1) = -.016 MACH = .90100 RN/L = 4.2086 PO = 2101.3 P = 1241.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3457
90.000 -.3560
180.000 -.3552
270.000 -.5184

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

SRB SKIRT

(RE4108) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.907 BETA (1) = .000 MACH = 1.0989 RN/L = 4.3130 PO = 2107.0 P = 988.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3561
90.000 -.3741
180.000 -.3637
270.000 -.4452

ALPHA (2) = -.515 BETA (1) = -4.003 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3355
90.000 -.3467
180.000 -.3440
270.000 -.4255

ALPHA (2) = -.525 BETA (2) = .003 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3528
90.000 -.3761
180.000 -.3695
270.000 -.4248

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N)

SRB SKIRT

(RE4108)

ALPHA (2) = -.426 BETA (3) = 4.012 MACH = 1.1012 RN/L = 4.3135 PO = 2106.7 P = 985.16

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4102
90.000 -.4431
180.000 -.4221
270.000 -.4555

ALPHA (3) = 3.681 BETA (1) = .006 MACH = 1.1017 RN/L = 4.3151 PO = 2105.5 P = 984.01

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3878
90.000 -.4000
180.000 -.3929
270.000 -.4680

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TABULATED SOURCE DATA - IAB0

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ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4109) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.897 BETA (1) = .006 MACH = 1.2489 RN/L = 4.4001 PO = 2111.9 P = 816.48

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1751
90.000 -.1898
180.000 -.1796
270.000 -.2324

ALPHA (2) = -.482 BETA (1) = -4.006 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1714
90.000 -.1937
180.000 -.1742
270.000 -.1942

ALPHA (2) = -.519 BETA (2) = .003 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1775
90.000 -.1969
180.000 -.1955
270.000 -.2457

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4109)

ALPHA (2) = -.462 BETA (3) = 4.009 MACH = 1.2477 RN/L = 4.3993 PO = 2111.9 P = 817.80

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2366
90.000 -.2624
180.000 -.2522
270.000 -.2754

ALPHA (3) = 3.854 BETA (1) = .006 MACH = 1.2493 RN/L = 4.3962 PO = 2111.9 P = 816.04

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1952
90.000 -.2183
180.000 -.2129
270.000 -.2718

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4110) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.904 BETA (1) = -.006 MACH = 1.4001 RN/L = 4.2924 PO = 2119.7 P = 665.99

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.0856
90.000 -.0884
180.000 -.0730
270.000 -.1115

ALPHA (2) = -.406 BETA (1) = -4.009 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.0544
90.000 -.0622
180.000 -.0667
270.000 -.0754

ALPHA (2) = -.370 BETA (2) = .000 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.0757
90.000 -.0950
180.000 -.0897
270.000 -.1266

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4110)

ALPHA (2) = -.453 BETA (3) = 4.012 MACH = 1.4020 RN/L = 4.2945 PO = 2120.9 P = 664.59

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1146
90.000 -.1393
180.000 -.1409
270.000 -.1582

ALPHA (3) = 3.944 BETA (1) = -.006 MACH = 1.3972 RN/L = 4.2925 PO = 2121.1 P = 669.17

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.0818
90.000 -.1078
180.000 -.1059
270.000 -.1436

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ARC11-0231A80 OTS(SRB=N ORB=N+)

SRB SKIRT

(RE4111) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.957 BETA (1) = -.016 MACH = .59560 RN/L = 3.3845 PO = 2105.5 P = 1656.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4301
90.000 -.4391
180.000 -.4232
270.000 -.6989

ALPHA (2) = -.337 BETA (1) = -4.041 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4347
90.000 -.4008
180.000 -.4022
270.000 -.6396

ALPHA (2) = -.383 BETA (2) = -.022 MACH = .59910 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4234
90.000 -.4245
180.000 -.4178
270.000 -.6697

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORR=N+)

SRB SKIRT

(RE4111)

ALPHA (2) = -.400 BETA (3) = 3.997 MACH = .59810 RN/L = 3.3979 PO = 2105.7 P = 1653.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4319

90.000 -.4424

180.000 -.4335

270.000 -.6687

ALPHA (3) = 4.125 BETA (1) = -.025 MACH = .59930 RN/L = 3.4056 PO = 2106.2 P = 1652.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4074

90.000 -.4101

180.000 -.4146

270.000 -.6305

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

SRE SKIRT

(RE4112) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.062 BETA (1) = -.012 MACH = .89970 RN/L = 4.2040 PO = 2099.9 P = 1242.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4179
90.000 -.4278
180.000 -.4215
270.000 -.4989

ALPHA (2) = -.383 BETA (1) = -4.028 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3875
90.000 -.3987
180.000 -.3879
270.000 -.4692

ALPHA (2) = -.383 BETA (2) = -.016 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3915
90.000 -.4045
180.000 -.3997
270.000 -.5727

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

SRB SKIRT

(RE4112)

ALPHA (2) = -.453 BETA (3) = 4.000 MACH = .90127 RN/L = 4.2082 PO = 2100.1 P = 1240.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4715
90.000 -.4715
180.000 -.4592
270.000 -.6409

ALPHA (3) = 3.947 BETA (1) = -.012 MACH = .90020 RN/L = 4.1982 PO = 2099.2 P = 1240.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4104
90.000 -.4215
180.000 -.4254
270.000 -.6319

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+) SRB SKIRT

(RE4113) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-16 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.950 BETA (1) = .006 MACH = 1.0974 RN/L = 4.3157 PO = 2105.5 P = 989.31

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4608
90.000 -.4800
180.000 -.4687
270.000 -.5303

ALPHA (2) = -.509 BETA (1) = -4.066 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4357
90.000 -.4514
180.000 -.4509
270.000 -.5178

ALPHA (2) = -.552 BETA (2) = -.056 MACH = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4552
90.000 -.4768
180.000 -.4719
270.000 -.5237

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TABULATED SOURCE DATA - IA80

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ARC11-023IA80 OTS(SRB=N ORB=N+)

SRB SKIRT

(RE4113)

ALPHA (2) = -.486 BETA (3) = 3.950 M/ H = 1.1004 RN/L = 4.3182 PO = 2105.5 P = 985.62

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5051
90.000 -.5436
180.000 -.5214
270.000 -.5482

ALPHA (3) = 4.029 BETA (1) = -.069 MACH = 1.1030 RN/L = 4.3205 PO = 2104.8 P = 982.12

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4745
90.000 -.4951
180.000 -.4876
270.000 -.5424

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

SRB SKIRT

(RE4114) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.963 BETA (1) = .006 MACH = 1.2512 RN/L = 4.3841 PO = 2109.1 P = 812.89

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2680
90.000 -.2844
180.000 -.2719
270.000 -.3257

ALPHA (2) = -.492 BETA (1) = -4.006 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2744
90.000 -.2866
180.000 -.2698
270.000 -.2966

ALPHA (2) = -.466 BETA (2) = .003 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2802
90.000 -.3032
180.000 -.2937
270.000 -.3325

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TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=N ORB=N+)

SRB SKIRT

(RE4114)

ALPHA (2) = -.522 BETA (3) = 4.009 MACH = 1.2479 RN/L = 4.3874 PO = 2110.0 P = 816.96

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
 .000 -.3447
 90.000 -.3698
 180.000 -.3570
 270.000 -.3741

ALPHA (3) = 3.996 BETA (1) = .000 MACH = 1.2453 RN/L = 4.3815 PO = 2109.8 P = 819.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
 .000 -.2997
 90.000 -.3262
 180.000 -.3182
 270.000 -.3585

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+) SRB SKIRT

(RE4115) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.910 BETA (1) = -.006 MACH = 1.4040 RN/L = 4.2694 PO = 2117.6 P = 661.67

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1601
90.000 -.1672
180.000 -.1519
270.000 -.2189

ALPHA (2) = -.409 BETA (1) = -4.009 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1245
90.000 -.1332
180.000 -.1323
270.000 -.1698

ALPHA (2) = -.446 BETA (2) = .000 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 665.37

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1665
90.000 -.1863
180.000 -.1783
270.000 -.2162

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N+)

SRB SKIRT

(RE4115)

ALPHA (2) = -.509 BETA (3) = 4.009 MACH = 1.4005 RN/L = 4.2782 PO = 2119.0 P = 1.37

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2141
90.000 -.2452
180.000 -.2366
270.000 -.2475

ALPHA (3) = 3.848 BETA (1) = -.006 MACH = 1.4000 RN/L = 4.2776 PO = 2121.1 F = 668.55

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1697
90.000 -.2042
180.000 -.2131
270.000 -.2229

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

SRE SKIRT

(RE4116) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.986 BETA (1) = -.012 MACH = .90160 RN/L = 4.2050 PO = 2099.2 P = 1239.1

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4193
90.000 -.4334
180.000 -.4253
270.000 -.5363

ALPHA (2) = -.350 BETA (1) = -4.031 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1236.1

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3859
90.000 -.3904
180.000 -.3985
270.000 -.4686

ALPHA (2) = -.301 BETA (2) = -.016 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1236.1

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3947
90.000 -.4041
180.000 -.4085
270.000 -.5882

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) SRB SKIRT

(RE4116)

ALPHA (2) = -.317 BETA (3) = 4.000 MACH = .90357 RN/L = 4.2104 PO = 2098.7 P = 1236.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4675
90.000 -.4649
180.000 -.4615
270.000 -.6401

ALPHA (3) = 3.947 BETA (1) = -.019 MACH = .90070 RN/L = 4.2030 PO = 2098.5 P = 1239.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4206
90.000 -.4239
180.000 -.4231
270.000 -.6271

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

SRB SKIRT

(RE4117) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.020 BETA (1) = -.069 MACH = 1.0966 RN/L = 4.3161 PO = 2104.8 P = 990.02

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4619
90.000 -.4854
180.000 -.4745
270.000 -.5204

ALPHA (2) = -.479 BETA (1) = -4.069 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4362
90.000 -.4503
180.000 -.4450
270.000 -.5211

ALPHA (2) = -.489 BETA (2) = -.055 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4641
90.000 -.4933
180.000 -.4836
270.000 -.5234

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) SRB SKIRT

(RE4117)

ALPHA (2) = -.486 BETA (3) = 3.947 MACH = 1.1010 RN/L = 4.3147 PO = 2104.3 P = 984.44

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5181
90.000 -.5512
180.000 -.5256
270.000 -.5474

ALPHA (3) = 3.983 BETA (1) = -.063 MACH = 1.1056 RN/L = 4.3164 PO = 2104.1 P = 978.63

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4799
90.000 -.5059
180.000 -.5022
270.000 -.5386

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) SRB SKIRT

(RE4118) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .000 MACH = 1.2490 RN/L = 4.3771 PO = 2108.4 P = 815.07

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2869
90.000 -.3074
180.000 -.2920
270.000 -.3285

ALPHA (2) = -.429 BETA (1) = -4.006 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2829
90.000 -.3054
180.000 -.2853
270.000 -.3098

ALPHA (2) = -.423 BETA (2) = .003 MACH = 1.2479 RN/L = 4.3753 PO = 2108.4 P = 816.19

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2935
90.000 -.3149
180.000 -.3097
270.000 -.3387

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=N ORB=N-)

SRB SKIRT

(RE4118)

ALPHA (2) = -.416 BETA (3) = 4.009 MACH = 1.2479 RN/L = 4.3755 PO = 2108.4 P = 816.19

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
 .000 -.3626
 90.000 -.3852
 180.000 -.3746
 270.000 -.3847

ALPHA (3) = 3.993 BETA (1) = .003 MACH = 1.2456 RN/L = 4.3674 PO = 2108.4 P = 818.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
 .000 -.3128
 90.000 -.3453
 180.000 -.3377
 270.000 -.3654

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-)

SRB SKIRT

(RE4119) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.848 BETA (1) = -.006 MACH = 1.4069 RN/L = 4.2698 PO = 2120.4 P = 659.90

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1729
90.000 -.1823
180.000 -.1653
270.000 -.2218

ALPHA (2) = -.357 BETA (1) = -4.009 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1469
90.000 -.1664
180.000 -.1603
270.000 -.1860

ALPHA (2) = -.363 BETA (2) = .000 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1791
90.000 -.2047
180.000 -.1981
270.000 -.2171

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N-) SRB SKIRT

(RE4119)

ALPHA (2) = -.462 BETA (3) = 4.012 MACH = 1.4043 RN/L = 4.2657 PO = 2120.4 P = 662.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2366
90.000 -.2581
180.000 -.2524
270.000 -.2598

ALPHA (3) = 3.986 BETA (1) = -.003 MACH = 1.4018 RN/L = 4.2745 PO = 2122.5 P = 665.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1847
90.000 -.2186
180.000 -.2158
270.000 -.2291

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4120) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.868 BETA (1) = -.016 MACH = .59200 RN/L = 3.3619 PO = 2105.5 P = 1661.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4426
90.000 -.4524
180.000 -.4395
270.000 -.7027

ALPHA (2) = -.327 BETA (1) = -4.038 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4211
90.000 -.3868
180.000 -.3913
270.000 -.6182

ALPHA (2) = -.291 BETA (2) = -.022 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4376
90.000 -.4359
180.000 -.4355
270.000 -.6759

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE4120)

ALPHA (2) = -.386 BETA (3) = 3.994 MACH = .59820 RN/L = 3.3862 PO = 2105.3 P = 1652.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4142
90.000 -.4344
180.000 -.4306
270.000 -.6428

ALPHA (3) = 4.016 BETA (1) = -.022 MACH = .60330 RN/L = 3.4092 PO = 2105.5 P = 1646.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4045
90.000 -.4093
180.000 -.4089
270.000 -.6271

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4121) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.977 BETA (1) = -.016 MACH = .90170 RN/L = 4.2042 PO = 2099.2 P = 1238.9

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4050
90.000 -.4211
180.000 -.4108
270.000 -.5050

ALPHA (2) = -.327 BETA (1) = -4.028 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3837
90.000 -.3765
180.000 -.3730
270.000 -.4643

ALPHA (2) = -.317 BETA (2) = -.012 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4140
90.000 -.4174
180.000 -.4140
270.000 -.5766

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4121)

ALPHA (2) = -.350 BETA (3) = 4.000 MACH = .90323 RN/L = 4.2094 PO = 2099.4 P = 1237.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4670
90.000 -.4630
180.000 -.4537
270.000 -.6337

ALPHA (3) = 3.977 BETA (1) = -.012 MACH = .90240 RN/L = 4.2041 PO = 2098.5 P = 1237.5

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4083
90.000 -.4176
180.000 -.4228
270.000 -.6270

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4122) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = -.063 MACH = 1.0978 RN/L = 4.3175 PO = 2104.8 P = 988.46

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4589
90.000 -.4800
180.000 -.4672
270.000 -.5223

ALPHA (2) = -.525 BETA (1) = -4.069 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4364
90.000 -.4511
180.000 -.4487
270.000 -.5190

ALPHA (2) = -.439 BETA (2) = -.056 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4644
90.000 -.4887
180.000 -.4819
270.000 -.5207

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE4122)

ALPHA (2) = -.482 BETA (3) = 3.950 MACH = 1.1008 RN/L = 4.3153 PO = 2104.6 P = 984.73

SECTION (1)SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5055
90.000 -.5442
180.000 -.5202
270.000 -.5476

ALPHA (3) = 3.963 BETA (1) = -.063 MACH = 1.1046 RN/L = 4.3189 PO = 2104.1 P = 979.83

SECTION (1)SRB INSIDE SKIRT DEPENDENT VARIABLE CP

X3/LB .9500

PHI
.000 -.4761
90.000 -.5021
180.000 -.4945
270.000 -.5375

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4123) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.917 BETA (1) = .003 MACH = 1.2460 RN/L = 4.3726 PO = 2108.4 P = 818.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2851
90.000 -.3057
180.000 -.2917
270.000 -.3349

ALPHA (2) = -.446 BETA (1) = -4.006 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2815
90.000 -.3020
180.000 -.2823
270.000 -.3082

ALPHA (2) = -.455 BETA (2) = .003 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2872
90.000 -.3092
180.000 -.3039
270.000 -.3367

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4123)

ALPHA (2) = -.439 BETA (3) = 4.012 MACH = 1.2483 RN/L = 4.3668 PO = 2108.9 P = 816.03

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3579
90.000 -.3824
180.000 -.3718
270.000 -.3825

ALPHA (3) = 3.986 BETA (1) = .000 MACH = 1.2455 RN/L = 4.3668 PO = 2109.1 P = 819.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3092
90.000 -.3412
180.000 -.3306
270.000 -.3632

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4124) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.984 BETA (1) = -.003 MACH = 1.4001 RN/L = 4.2484 PO = 2114.0 P = 664.19

SECTION (1) SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1704
90.000 -.1787
180.000 -.1616
270.000 -.2220

ALPHA (2) = -.370 BETA (1) = -4.009 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1341
90.000 -.1486
180.000 -.1444
270.000 -.1751

ALPHA (2) = -.370 BETA (2) = .000 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1741
90.000 -.1986
180.000 -.1925
270.000 -.2155

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4124)

ALPHA (2) = -.429 BETA (3) = 4.012 MACH = 1.3999 RN/L = 4.2511 PO = 2113.8 P = 664.35

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2285

90.000 -.2536

180.000 -.2456

270.000 -.2555

ALPHA (3) = 3.894 BETA (1) = .000 MACH = 1.3947 RN/L = 4.2558 PO = 2114.0 P = 669.27

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1793

90.000 -.2108

180.000 -.2094

270.000 -.2264

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

SRB SKIRT

(RE4125) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0003 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.020 BETA (1) = -.063 MACH = 1.0964 RN/L = 4.3166 PO = 2104.1 P = 989.88

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5543
90.000 -.5777
180.000 -.5864
270.000 -.6045

ALPHA (2) = -.482 BETA (1) = -.069 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5285
90.000 -.5471
180.000 -.5394
270.000 -.5967

ALPHA (2) = -.489 BETA (2) = -.059 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5595
90.000 -.5910
180.000 -.5772
270.000 -.6071

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N) SRB SKIRT

(RE4125)

ALPHA (2) = -.453 BETA (3) = 3.950 MACH = 1.1000 RN/L = 4.3184 PO = 2103.9 P = 985.34

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5991
90.000 -.6327
180.000 -.6148
270.000 -.6281

ALPHA (3) = 4.029 BETA (1) = -.059 MACH = 1.1031

RN/L = 4.3201 PO = 2102.0 P = 980.74

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5739
90.000 -.6102
180.000 -.5997
270.000 -.6247

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

SRB SKIRT

(RE4126) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.983 BETA (1) = .000 MACH = 1.2472 RN/L = 4.3516 PO = 2107.7 P = 816.70

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3697
90.000 -.3992
180.000 -.3727
270.000 -.4039

ALPHA (2) = -.443 BETA (1) = -4.006 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3617
90.000 -.3919
180.000 -.3722
270.000 -.3900

ALPHA (2) = -.426 BETA (2) = .003 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3798
90.000 -.4011
180.000 -.3993
270.000 -.4123

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N) SRB SKIRT

(RE4126)

ALPHA (2) = -.456 BETA (3) = 4.016 MACH = 1.2481 RN/L = 4.3581 PO = 2107.7 P = 815.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4461
90.000 -.4645
180.000 -.4541
270.000 -.4571

ALPHA (3) = 4.020 BETA (1) = -.003 MACH = 1.2443 RN/L = 4.3536 PO = 2107.0 P = 819.62

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3966
90.000 -.4304
180.000 -.4220
270.000 -.4365

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N

SRB SKIRT

(RE4127) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.805 BETA (1) = .000 MACH = 1.4005 RN/L = 4.2336 PO = 2109.8 P = 662.52

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2571
90.000 -.2676
180.000 -.2474
270.000 -.2978

ALPHA (2) = -.353 BETA (1) = -4.006 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2175
90.000 -.2360
180.000 -.2300
270.000 -.2641

ALPHA (2) = -.367 BETA (2) = .000 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2555
90.000 -.2858
180.000 -.2811
270.000 -.2903

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N- ORB=N)

SRB SKIRT

(RE4127)

ALPHA (2) = -.400 BETA (3) = 4.012 MACH = 1.3984 RN/L = 4.2397 PO = 2110.7 P = 664.83

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3166
90.000 -.3310
180.000 -.3232
270.000 -.3308

ALPHA (3) = 3.983 BETA (1) = .000 MACH = 1.3983 RN/L = 4.2365 PO = 2109.8 P = 664.56

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2636
90.000 -.2939
180.000 -.2877
270.000 -.2946

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE4128) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-05 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.000 BETA (1) = -.016 MACH = .59820 RN/L = 3.3864 PO = 2123.2 P = 1666.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3652
90.000 -.3291
180.000 -.3451
270.000 -.4459

ALPHA (2) = -.254 BETA (1) = -4.034 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3356
90.000 -.2973
180.000 -.3130
270.000 -.4213

ALPHA (2) = -.261 BETA (2) = -.019 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3490
90.000 -.3108
180.000 -.3285
270.000 -.3926

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF SRB SKIRT

(RE4128)

ALPHA (2) = -.274 BETA (3) = 3.991 MACH = .59700 RN/L = 3.3816 PO = 2123.7 P = 1668.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

X8/LB .9500

PHI
.000 -.3580
90.000 -.3201
180.000 -.3450
270.000 -.3851

ALPHA (3) = 4.013 BETA (1) = -.019 MACH = .59700 RN/L = 3.3862 PO = 2124.6 P = 1669.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

X3/LB .9500

PHI
.000 -.3316
90.000 -.3074
180.000 -.3207
270.000 -.3893

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4129) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-09 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.006 MACH = .90100 RN/L = 4.2493 PO = 2121.1 P = 1252.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3202
90.000 -.2680
180.000 -.3064
270.000 -.4121

ALPHA (2) = -.320 BETA (1) = -4.022 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2951
90.000 -.2814
180.000 -.2813
270.000 -.3922

ALPHA (2) = -.310 BETA (2) = -.009 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2947
90.000 -.2693
180.000 -.2666
270.000 -.3771

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4129)

ALPHA (2) = -.297 BETA (3) = 4.006 MACH = .90373 RN/L = 4.2509 PO = 2123.0 P = 1250.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3367
90.000 -.3165
180.000 -.3444
270.000 -.3827

ALPHA (3) = 3.985 BETA (1) = -.009 MACH = .89810 RN/L = 4.2418 PO = 2119.7 P = 1255.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3099
90.000 -.3023
180.000 -.3132
270.000 -.3865

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4130) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.016 BETA (1) = -.003 MACH = 1.0992 RN/L = 4.3334 PO = 2116.2 P = 992.05

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5745
90.000 -.5382
180.000 -.5850
270.000 -.5916

ALPHA (2) = -.370 BETA (1) = -4.006 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5358
90.000 -.5426
180.000 -.5284
270.000 -.5568

ALPHA (2) = -.343 BETA (2) = .003 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5601
90.000 -.5721
180.000 -.5539
270.000 -.5733

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4130)

ALPHA (2) = - .370 BETA (3) = 4.009 MACH = 1.1030 RN/L = 4.2966 PO = 2115.2 P = 987.00

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 - .5548
90.000 - .5747
180.000 - .5521
270.000 - .5655

ALPHA (3) = 3.894 BETA (1) = - .003 MACH = 1.1097 RN/L = 4.2923 PO = 2114.0 P = 978.29

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 - .5542
90.000 - .5734
180.000 - .5613
270.000 - .5748

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4131) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.970 BETA (1) = -.003 MACH = 1.2502 RN/L = 4.3628 PO = 2115.4 P = 816.45

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5154
90.000 -.5313
180.000 -.5071
270.000 -.5220

ALPHA (2) = -.330 BETA (1) = -4.006 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4946
90.000 -.5139
180.000 -.5120
270.000 -.5031

ALPHA (2) = -.317 BETA (2) = .003 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5261
90.000 -.5383
180.000 -.5318
270.000 -.5291

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4131)

ALPHA (2) = - .370 BETA (3) = 4.012 MACH = 1.2515 RN/L = 4.3608 PO = 2116.1 P = 815.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5326
90.000 -.5441
180.000 -.5175
270.000 -.5232

ALPHA (3) = 3.950 BETA (1) = -.003 MACH = 1.2493 RN/L = 4.3586 PO = 2116.9 P = 818.02

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5447
90.000 -.5599
180.000 -.5592
270.000 -.5506

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TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=OFF ORB=OFF)

SFB SKIRT

(RE4132) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -4.043 BETA (1) = .000 MACH = 1.4047 RN/L = 4.2434 PO = 2120.4 P = 661.94

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4299
90.000 -.4394
180.000 -.4291
270.000 -.4409

ALPHA (2) = -.195 BETA (1) = -4.012 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4012
90.000 -.4239
180.000 -.4200
270.000 -.4336

ALPHA (2) = -.211 BETA (2) = .000 MACH = 1.4026 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4475
90.000 -.4527
180.000 -.4542
270.000 -.4444

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4132)

ALPHA (2) = .083 BETA (3) = 4.006 MACH = 1.4028 RN/L = 4.2458 PO = 2120.4 P = 663.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4690
90.000 -.4760
180.000 -.4673
270.000 -.4645

ALPHA (3) = 4.082 BETA (1) = .000 MACH = 1.3993 RN/L = 4.2463 PO = 2120.4 P = 667.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4577
90.000 -.4781
180.000 -.4780
270.000 -.4770

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4133) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 1.750 MACH = .600

ALPHA (1) = -3.953 BETA (1) = -.003 MACH = .59560 RN/L = 1.7428 PO = 1060.9 P = 834.63

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3557
90.000 -.3172
180.000 -.3433
270.000 -.4189

ALPHA (2) = -.271 BETA (1) = -4.044 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3473
90.000 -.3252
180.000 -.3279
270.000 -.4299

ALPHA (2) = -.284 BETA (2) = -.031 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3287
90.000 -.2673
180.000 -.3151
270.000 -.3553

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE4133)

ALPHA (2) = -.343 BETA (3) = 3.984 MACH = .59443 RN/L = 1.7407 PO = 1060.2 P = 834.82

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3773
90.000 -.3372
180.000 -.3669
270.000 -.4001

ALPHA (3) = 3.963 BETA (1) = -.003 MACH = .59300 RN/L = 1.7403 PO = 1060.2 P = 835.76

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3479
90.000 -.3223
180.000 -.3403
270.000 -.3853

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4134) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-09 = .000
RN/L = 2.250 MACH = .900

ALPHA (1) = -3.947 BETA (1) = .000 MACH = .90000 RN/L = 2.1578 PO = 1061.6 P = 627.70

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3241
90.000 -.2916
180.000 -.3124
270.000 -.4178

ALPHA (2) = -.264 BETA (1) = -4.044 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2989
90.000 -.2793
180.000 -.2821
270.000 -.3883

ALPHA (2) = -.271 BETA (2) = -.031 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3157
90.000 -.2869
180.000 -.3060
270.000 -.4005

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TAULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4134)

ALPHA (2) = -.304 BETA (3) = 3.984 MACH = .90150 RN/L = 2.1576 PO = 1060.4 P = 625.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3502
90.000 -.3216
180.000 -.3562
270.000 -.3719

ALPHA (3) = 3.990 BETA (1) = -.003 MACH = .90350 RN/L = 2.1629 PO = 1061.6 P = 625.33

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3133
90.000 -.3045
180.000 -.3157
270.000 -.3914

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4135) (13 JAN 75)

REFERENCE DATA

SRFF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LRF = 1290.3000 IN. YMRP = .0000 IN.
BRF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 2.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .000 MACH = 1.0935 RN/L = 2.2424 PO = 1058.8 P = 499.91

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5912
90.000 -.6062
180.000 -.6045
270.000 -.6124

ALPHA (2) = -.225 BETA (1) = -4.009 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5560
90.000 -.5628
180.000 -.5513
270.000 -.5761

ALPHA (2) = -.225 BETA (2) = .000 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5852
90.000 -.5967
180.000 -.5781
270.000 -.5967

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4135)

ALPHA (2) = -.231 BETA (3) = 4.012 MACH = 1.0961 RN/L = 2.2501 PO = 1061.4 P = 499.48

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5770
90.000 -.5980
180.000 -.5749
270.000 -.5916

ALPHA (3) = 4.016 BETA (1) = -.003 MACH = 1.1017 RN/L = 2.2510 PO = 1060.9 P = 495.81

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5746
90.000 -.5959
180.000 -.5827
270.000 -.5949

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4135) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 2.250 MACH = 1.250

ALPHA (1) = -3.993 BETA (1) = .003 MACH = 1.2488 RN/L = 2.2675 PO = 1060.9 P = 410.21

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5166
90.000 -.5361
180.000 -.5077
270.000 -.5208

ALPHA (2) = -.145 BETA (1) = -4.003 MACH = 1.2488 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4997
90.000 -.5226
180.000 -.5178
270.000 -.5096

ALPHA (2) = -.129 BETA (2) = .003 MACH = 1.2488 RN/L = 2.2690 PO = 1060.9 P = 410.21

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5261
90.000 -.5424
180.000 -.5347
270.000 -.5328

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4136)

ALPHA (2) = -.175 BETA (3) = 4.009 MACH = 1.2488 RN/L = 2.2680 PO = 1060.9 P = 410.21

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5342
90.000 -.5505
180.000 -.5247
270.000 -.5320

ALPHA (3) = 4.072 BETA (1) = .003 MACH = 1.2496 RN/L = 2.2672 PO = 1060.9 P = 409.77

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5408
90.000 -.5621
180.000 -.5618
270.000 -.5516

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1313

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4137) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 2.250 MACH = 1.400

ALPHA (1) = -4.013 BETA (1) = .003 MACH = 1.3998 RN/L = 2.2349 PO = 1061.6 P = 333.70

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4391
90.000 -.4538
180.000 -.4438
270.000 -.4510

ALPHA (2) = -.241 BETA (1) = -4.006 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4080
90.000 -.4336
180.000 -.4283
270.000 -.4411

ALPHA (2) = -.264 BETA (2) = .000 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4492
90.000 -.4611
180.000 -.4652
270.000 -.4545

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1314

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4137)

ALPHA (2) = -.267 BETA (3) = 4.009 MACH = 1.3997 RN/L = 2.2285 PO = 1060.0 P = 333.23

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4661

90.000 -.4817

180.000 -.4689

270.000 -.4702

ALPHA (3) = 4.010 BETA (1) = .003 MACH = 1.3956 RN/L = 2.2367 PO = 1060.2 P = 335.22

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4663

90.000 -.4863

180.000 -.4863

270.000 -.4800

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 13:5

ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4138) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 1.750 MACH = .600

ALPHA (1) = -3.980 BETA (1) = -.003 MACH = .59910 RN/L = 1.7583 PO = 1060.9 P = 832.35

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4529
90.000 -.4590
180.000 -.4461
270.000 -.7024

ALPHA (2) = -.314 BETA (1) = -4.044 MACH = .59907 RN/L = 1.7686 PO = 1066.1 P = 836.42

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4300
90.000 -.4029
180.000 -.3975
270.000 -.6432

ALPHA (2) = -.317 BETA (2) = -.009 MACH = .59907 RN/L = 1.7686 PO = 1066.1 P = 836.42

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4355
90.000 -.4295
180.000 -.4281
270.000 -.6797

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4138)

ALPHA (2) = -.327 BETA (3) = 3.991 MACH = .59907 RN/L = 1.768E PO = 1066.1 P = 835.42

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4586
90.000 -.4627
180.000 -.4586
270.000 -.6837

ALPHA (3) = 3.950 BETA (1) = -.003 MACH = .60350 RN/L = 1.7801 PO = 1066.6 P = 833.90

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4101
90.000 -.4194
180.000 -.4188
270.000 -.6421

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4139) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 2.250 MACH = .900

ALPHA (1) = -3.986 BETA (1) = .003 MACH = .89730 RN/L = 2.1589 PO = 1063.0 P = 630.39

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4236
90.000 -.4424
180.000 -.4331
270.000 -.5757

ALPHA (2) = -.294 BETA (1) = -4.044 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4035
90.000 -.3967
180.000 -.4047
270.000 -.5003

ALPHA (2) = -.310 BETA (2) = -.028 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4325
90.000 -.4388
180.000 -.4396
270.000 -.6218

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4139)

ALPHA (2) = -.320 BETA (3) = 3.981 MACH = .90407 RN/L = 2.1638 PO = 1061.8 P = 625.06

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4961
90.000 -.4869
180.000 -.4758
270.000 -.6667

ALPHA (3) = 3.970 BETA (1) = .000 MACH = .90120 RN/L = 2.1596 PO = 1060.2 P = 626.02

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4197
90.000 -.4333
180.000 -.4313
270.000 -.6390

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4140) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-09 = .000
RN/L = 2.250 MACH = 1.100

ALPHA (1) = -3.801 BETA (1) = -.006 MACH = 1.0940 RN/L = 2.2469 PO = 1059.5 P = 499.92

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5116
90.000 -.5334
180.000 -.5218
270.000 -.5647

ALPHA (2) = -.304

MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4865
90.000 -.5058
180.000 -.4993
270.000 -.5526

ALPHA (2) = -.267

BETA (2) = .003 MACH = 1.0971 RN/L = 2.2528 PO = 1061.4 P = 498.93

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5145
90.000 -.5504
180.000 -.5369
270.000 -.5681

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4140)

ALPHA (2) = - .390 BETA (3) = 4.016 MACH = 1.0971 RN/L = 2.2523 PO = 1061.4 P = 498.93

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .5598
90.000 - .5958
180.000 - .5751
270.000 - .5920

ALPHA (3) = 3.983 BETA (1) = .003 MACH = 1.1029 RN/L = 2.2596 PO = 1063.7 P = 496.39

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .5177
90.000 - .5528
180.000 - .5420
270.000 - .5730

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1321

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4141) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 2.500 MACH = .600

ALPHA (1) = -4.000 BETA (1) = -.022 MACH = .60170 RN/L = 2.5509 PO = 1557.4 P = 1219.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3598
90.000 -.3230
180.000 -.3423
270.000 -.4348

ALPHA (2) = -.261 BETA (1) = -4.041 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3281
90.000 -.2942
180.000 -.3030
270.000 -.4071

ALPHA (2) = -.271 BETA (2) = -.025 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3347
90.000 -.2913
180.000 -.3187
270.000 -.3790

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4141)

ALPHA (2) = -.343 BETA (3) = 3.991 MACH = .60297 RN/L = 2.5529 PO = 1556.0 P = 1217.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3588
90.000 -.3113
180.000 -.3428
270.000 -.3808

ALPHA (3) = 3.944 BETA (1) = -.022 MACH = .60230 RN/L = 2.5548 PO = 1556.7 P = 1218.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3312
90.000 -.3008
180.000 -.3192
270.000 -.3799

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB: : ORB=OFF)

SRB SKIRT

(RE4142) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 3.250 MACH = .900

ALPHA (1) = -3.930 BETA (1) = .003 MACH = .90330 RN/L = 3.1425 PO = 1558.1 P = 918.01

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3305
90.000 -.2998
180.000 -.3207
270.000 -.4249

ALPHA (2) = -.284 BETA (1) = -4.041 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2953
90.000 -.2724
180.000 -.2765
270.000 -.3793

ALPHA (2) = -.281 BETA (2) = -.028 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3097
90.000 -.2858
180.000 -.3065
270.000 -.3983

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ARC11-0231A80 OT5(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4142)

ALPHA (2) = -.249 BETA (3) = 3.994 MACH = .90200 RN/L = 3.1294 PO = 1556.9 P = 918.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3295
90.000 -.3080
180.000 -.3407
270.000 -.3810

ALPHA (3) = 3.960 BETA (1) = .000 MACH = .89670 RN/L = 3.1185 PO = 1557.4 P = 924.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3107
90.000 -.3057
180.000 -.3167
270.000 -.3899

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A20 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4143) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 3.250 MACH = 1.100

ALPHA (1) = -4.016 BETA (1) = .003 MACH = 1.0981 RN/L = 3.2788 PO = 1555.3 P = 730.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5766
90.000 -.5919
180.000 -.5892
270.000 -.5972

ALPHA (2) = -.287 BETA (1) = -4.006 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5473
90.000 -.5538
180.000 -.5417
270.000 -.5677

ALPHA (2) = -.291 BETA (2) = .000 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5701
90.000 -.5831
180.000 -.5658
270.000 -.5835

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4143)

ALPHA (2) = - .310 BETA (3) = 4.006 MACH = 1.0996 RN/L = 3.2682 PO = 1553.2 P = 727.81

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .5651
90.000 - .5862
180.000 - .5630
270.000 - .5783

ALPHA (3) = 4.016 BETA (1) = .003 MACH = 1.1070 RN/L = 3.2713 PO = 1554.6 P = 721.83

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .5625
90.000 - .5817
180.000 - .5688
270.000 - .5817

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4144) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 3.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .000 MACH = 1.2532 RN/L = 3.2918 PO = 1554.6 P = 597.59

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5137
90.000 -.5332
180.000 -.5072
270.000 -.5209

ALPHA (2) = -.287 BETA (1) = -4.003 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5092
90.000 -.5313
180.000 -.5273
270.000 -.5180

ALPHA (2) = -.277 BETA (2) = .003 MACH = 1.2509 RN/L = 3.2855 PO = 1552.7 P = 598.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5257
90.000 -.5391
180.000 -.5322
270.000 -.5289

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4144)

ALPHA (2) = - .376 BETA (3) = 4.012 MACH = 1.2509 RN/L = 3.2853 PO = 1552.7 P = 598.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 - .5314
90.000 - .5426
180.000 - .5166
270.000 - .5229

ALPHA (3) = 3.947 BETA (1) = - .003 MACH = 1.2488 RN/L = 3.2905 PO = 1553.9 P = 600.81

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 - .5444
90.000 - .5627
180.000 - .5614
270.000 - .5494

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4145) (13 JAN 75)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.250 MACH = 1.400

ALPHA (1) = -3.990 BETA (1) = -.003 MACH = 1.4024 RN/L = 3.2259 PO = 1554.6 P = 485.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4369
90.000 -.4476
180.000 -.4374
270.000 -.4459

ALPHA (2) = -.284 BETA (1) = -4.000 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4012
90.000 -.4242
180.000 -.4213
270.000 -.4328

ALPHA (2) = -.297 BETA (2) = .000 MACH = 1.4054 RN/L = 3.2190 PO = 1553.7 P = 484.53

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4455
90.000 -.4525
180.000 -.4553
270.000 -.4457

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4145)

ALPHA (2) = -.294 BETA (3) = 4.009 MACH = 1.4054 RN/L = 3.2150 PO = 1553.7 P = 484.53

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4615
90.000 -.4732
180.000 -.4624
270.000 -.4634

ALPHA (3) = 3.980 BETA (1) = .000 MACH = 1.4028 RN/L = 3.2136 PO = 1553.2 P = 485.18

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4661
90.000 -.4834
180.000 -.4800
270.000 -.4747

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1331

ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4146) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-09 = .000
RN/L = 2.500 MACH = .600

ALPHA (1) = -3.694 BETA (1) = -.022 MACH = .60060 RN/L = 2.5569 PO = 1558.8 P = 1221.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4409
90.000 -.4384
180.000 -.4315
270.000 -.6978

ALPHA (2) = -.350 BETA (1) = -4.041 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4231
90.000 -.3969
180.000 -.3941
270.000 -.6460

ALPHA (2) = -.320 BETA (2) = -.025 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4355
90.000 -.4318
180.000 -.4355
270.000 -.6751

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4146)

ALPHA (2) = -.337 BETA (3) = 3.994 MACH = .59890 RN/L = 2.5548 PO = 1557.9 P = 1222.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4637
90.000 -.4821
180.000 -.4765
270.000 -.7107

ALPHA (3) = 4.076 BETA (1) = -.028 MACH = .60170 RN/L = 2.5615 PO = 1555.3 P = 1217.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3940
90.000 -.4000
180.000 -.4046
270.000 -.6189

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A90 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4147) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.250 MACH = .900

ALPHA (1) = -4.033 BETA (1) = .000 MACH = .90410 RN/L = 3.1247 PO = 1556.7 P = 916.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4199
90.000 -.4335
180.000 -.4275
270.000 -.5533

ALPHA (2) = -.343 BETA (1) = -4.044 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3957
90.000 -.3913
180.000 -.3951
270.000 -.4763

ALPHA (2) = -.340 BETA (2) = -.028 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4201
90.000 -.4319
180.000 -.4346
270.000 -.6108

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4147)

ALPHA (2) = -.340 BETA (3) = 3.991 MACH = .90470 RN/L = 3.1302 PO = 1559.3 P = 917.26

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4663
90.000 -.4671
180.000 -.4583
270.000 -.6439

ALPHA (3) = 3.927 BETA (1) = -.028 MACH = .90080 RN/L = 3.1258 PO = 1559.5 P = 921.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4255
90.000 -.4359
180.000 -.4380
270.000 -.6557

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4148) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 3.250 MACH = 1.100

ALPHA (1) = -3.934 BETA (1) = .003 MACH = 1.0985 RN/L = 3.2696 PO = 1558.8 P = 731.42

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4814
90.000 -.5042
180.000 -.4920
270.000 -.5385

ALPHA (2) = -.413 BETA (1) = -4.006 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4501
90.000 -.4639
180.000 -.4605
270.000 -.5202

ALPHA (2) = -.443 BETA (2) = .000 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4835
90.000 -.5135
180.000 -.5026
270.000 -.5394

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4148)

ALPHA (2) = -.420 BETA (3) = 4.016 MACH = 1.1014 RN/L = 3.2674 PO = 1557.4 P = 728.17

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5286
90.000 -.5647
180.000 -.5426
270.000 -.5656

ALPHA (3) = 3.884 BETA (1) = .000 MACH = 1.1080 RN/L = 3.2705 PO = 1558.1 P = 722.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4804
90.000 -.5093
180.000 -.4987
270.000 -.5423

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4149) (21 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 ALPHA = .000

BETA (1) = -.063 MACH (1) = .908 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3128
90.000 -.2826
180.000 -.3062
270.000 -.3983

BETA (1) = -.063 MACH (2) = .947 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3387
90.000 -.3146
180.000 -.3450
270.000 -.3988

BETA (1) = -.063 MACH (3) = .998 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4904
90.000 -.4792
180.000 -.4781
270.000 -.5152

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4149)

BETA (1) = -.063 MACH (4) = 1.050 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5835
90.000 -.5890
180.000 -.5825
270.000 -.6009

BETA (1) = -.063 MACH (5) = 1.102 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5803
90.000 -.5900
180.000 -.5822
270.000 -.5914

BETA (1) = -.063 MACH (6) = 1.146 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5074
90.000 -.5250
180.000 -.5128
270.000 -.5259

BETA (1) = -.063 MACH (7) = 1.195 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5444
90.000 -.5561
180.000 -.5412
270.000 -.5531

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ARC11-0231A90 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4149)

BETA (1) = -.063 MACH (8) = 1.253 ALPHA = .87925-01 RN/L = 4.3824 PO = 2112.8 P = 1025.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000	-.5280
90.000	-.5387
180.000	-.5277
270.000	-.5280

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4150) (21 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 ALPHA = .000

BETA (1) = -.063 MACH (1) = .893 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4006
90.000 -.4145
180.000 -.4126
270.000 -.5888

BETA (1) = -.063 MACH (2) = .948 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5276
90.000 -.5417
180.000 -.5368
270.000 -.7365

BETA (1) = -.063 MACH (3) = .995 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.6709
90.000 -.6809
180.000 -.6730
270.000 -.7382

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4150)

BETA (1) = -.063 MACH (4) = 1.052 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5680
90.000 -.5960
180.000 -.5863
270.000 -.6290

BETA (1) = -.063 MACH (5) = 1.098 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4883
90.000 -.5161
180.000 -.5058
270.000 -.5450

BETA (1) = -.063 MACH (6) = 1.149 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3966
90.000 -.4136
180.000 -.4059
270.000 -.4645

BETA (1) = -.063 MACH (7) = 1.197 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3454
90.000 -.3613
180.000 -.3519
270.000 -.3960

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4150)

BETA (1) = -.063 MACH (8) = 1.250 ALPHA = -.66125-02 RN/L = 4.3693 PO = 2107.0 P = 1025.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI	
.000	-.3003
90.000	-.3174
180.000	-.3089
270.000	-.3455

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4151) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .980

ALPHA (1) = -3.950 BETA (1) = -.063 MACH = .98240 RN/L = 4.3057 PO = 2116.2 P = 1141.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4642
90.000 -.4336
180.000 -.4500
270.000 -.4836

ALPHA (2) = -.416 BETA (1) = -4.075 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3989
90.000 -.3933
180.000 -.3811
270.000 -.4664

ALPHA (2) = -.386 BETA (2) = -.063 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4569
90.000 -.4406
180.000 -.4448
270.000 -.4858

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4151)

ALPHA (2) = -.370 BETA (3) = 3.950 MACH = .98283 RN/L = 4.3109 PO = 2116.4 P = 1140.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4601
90.000 -.4400
180.000 -.4579
270.000 -.4805

ALPHA (3) = 4.076 BETA (1) = -.063 MACH = .98530 RN/L = 4.3166 PO = 2116.2 P = 1137.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4086
90.000 -.4343
180.000 -.4240
270.000 -.4558

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4152) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .980

ALPHA (1) = -3.930 BETA (1) = -.063 MACH = .97970 RN/L = 4.2999 PO = 2109.1 P = 1140.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.6419
90.000 -.6503
180.000 -.6448
270.000 -.7638

ALPHA (2) = -.519 BETA (1) = -4.078 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5465
90.000 -.5423
180.000 -.5495
270.000 -.7140

ALPHA (2) = -.476 BETA (2) = -.063 MACH = .98183 RN/L = 4.3033 PO = 2108.9 P = 1137.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.6498
90.000 -.6577
180.000 -.6447
270.000 -.7471

DATE 23 JUL 76

TABLULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE4152)

ALPHA (2) = -.499 BETA (3) = 3.953 MACH = .98183 RN/L = 4.3333 PO = 2108.9 P = 1137.8

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.6548
90.000 -.6681
180.000 -.6574
270.000 -.7213

ALPHA (3) = 3.993 BETA (1) = -.063 MACH = .98140 RN/L = 4.3065 PO = 2109.8 P = 1138.9

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.6542
90.000 -.6577
180.000 -.6526
270.000 -.7910

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4153) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.944 BETA (1) = .000 MACH = .60320 RN/L = 3.4712 PO = 2123.2 P = 1660.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3598
90.000 -.3265
180.000 -.3473
270.000 -.4502

ALPHA (2) = -.320 BETA (1) = -4.050 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1655.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3290
90.000 -.2915
180.000 -.3059
270.000 -.4148

ALPHA (2) = -.297 BETA (2) = .000 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3400
90.000 -.3069
180.000 -.3219
270.000 -.3873

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4153)

ALPHA (2) = -.314 BETA (3) = 3.978 MACH = .60547 RN/L = 3.4696 PO = 2122.3 P = 1656.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3501
90.000 -.3075
180.000 -.3362
270.000 -.3738

ALPHA (3) = 4.053 BETA (1) = .000 MACH = .60520 RN/L = 3.4659 PO = 2121.8 P = 1656.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3244
90.000 -.3053
180.000 -.3174
270.000 -.3827

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4154) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.940 BETA (1) = -.044 MACH = .89610 RN/L = 4.1894 PO = 2105.5 P = 1250.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3205
90.000 -.2861
180.000 -.3122
270.000 -.4184

ALPHA (2) = -.284 BETA (1) = -4.059 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3028
90.000 -.2779
180.000 -.2840
270.000 -.3950

ALPHA (2) = -.320 BETA (2) = -.041 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3092
90.000 -.2782
180.000 -.2980
270.000 -.3996

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4154)

ALPHA (2) = -.314 BETA (3) = 3.975 MACH = .89087 RN/L = 4.1758 PO = 2102.0 P = 1255.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3421
90.000 -.3194
180.000 -.3493
270.000 -.3848

ALPHA (3) = 3.980 BETA (1) = -.038 MACH = .89310 RN/L = 4.1769 PO = 2101.3 P = 1251.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3020
90.000 -.2963
180.000 -.3106
270.000 -.3780

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A90 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4155) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-09 = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.772 BETA (1) = -.066 MACH = 1.1026 RN/L = 4.3661 PO = 2116.2 P = 987.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5797
90.000 -.5902
180.000 -.5873
270.000 -.5953

ALPHA (2) = -.380 BETA (1) = -4.075 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5353
90.000 -.5412
180.000 -.5327
270.000 -.5584

ALPHA (2) = -.357 BETA (2) = -.059 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5676
90.000 -.5793
180.000 -.5605
270.000 -.5791

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4155)

ALPHA (2) = -.367 BETA (3) = 3.956 MACH = 1.1029 RN/L = 4.3716 PO = 2116.7 P = 987.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5658
90.000 -.5836
180.000 -.5671
270.000 -.5802

ALPHA (3) = 4.092 BETA (1) = -.059 MACH = 1.0997 RN/L = 4.3718 PO = 2114.7 P = 990.85

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5781
90.000 -.5987
180.000 -.5931
270.000 -.6004

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4156) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.950 BETA (1) = -.063 MACH = 1.2534 RN/L = 4.3988 PO = 2111.9 P = 811.60

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5239
90.000 -.5374
180.000 -.5144
270.000 -.5283

ALPHA (2) = -.324 BETA (1) = -4.075 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4986
90.000 -.5199
180.000 -.5149
270.000 -.5122

ALPHA (2) = -.314 BETA (2) = -.063 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5296
90.000 -.5385
180.000 -.5356
270.000 -.5283

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1354

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4156)

ALPHA (2) = -.343 BETA (3) = 3.953 MACH = 1.2533 RN/L = 4.3973 PO = 2112.4 P = 811.89

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5317
90.000 -.5432
180.000 -.5221
270.000 -.5244

ALPHA (3) = 3.967 BETA (1) = -.066 MACH = 1.2519 RN/L = 4.3949 PO = 2112.6 P = 813.49

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5463
90.000 -.5587
180.000 -.5576
270.000 -.5480

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1355

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4157) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.953 BETA (1) = -.053 MACH = 1.4049 RN/L = 4.3087 PO = 2128.2 P = 664.20

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4406
90.000 -.4479
180.000 -.4382
270.000 -.4492

ALPHA (2) = -.317 BETA (1) = -4.075 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3985
90.000 -.4194
180.000 -.4162
270.000 -.4363

ALPHA (2) = -.320 BETA (2) = -.059 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4427
90.000 -.4493
180.000 -.4532
270.000 -.4459

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4157)

ALPHA (2) = -.522 BETA (3) = 3.956 MACH = 1.4057 RN/L = 4.3127 PO = 2132.4 P = 664.76

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4564
90.000 -.4669
180.000 -.4595
270.000 -.4575

ALPHA (3) = 4.208 BETA (1) = -.069 MACH = 1.4030 RN/L = 4.2923 PO = 2121.8 P = 663.96

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4642
90.000 -.4759
180.000 -.4746
270.000 -.4701

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4158) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.953 BETA (1) = .000 MACH = .59380 RN/L = 3.3921 PO = 2104.8 P = 1658.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4380
90.000 -.4453
180.000 -.4397
270.000 -.7146

ALPHA (2) = -.343 BETA (1) = -4.050 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4078
90.000 -.3916
180.000 -.3888
270.000 -.6344

ALPHA (2) = -.380 BETA (2) = .000 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4190
90.000 -.4231
180.000 -.4248
270.000 -.6871

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE4158)

ALPHA (2) = -.386 BETA (3) = 3.978 MACH = .59587 RN/L = 3.4000 PO = 2105.0 P = 1655.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4392
90.000 -.4556
180.000 -.4483
270.000 -.6876

ALPHA (3) = 3.993 BETA (1) = -.003 MACH = .59700 RN/L = 3.4043 PO = 2104.8 P = 1654.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4011
90.000 -.4094
180.000 -.4094
270.000 -.6544

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4159) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XM RP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.983 BETA (1) = -.038 MACH = .89250 RN/L = 4.1747 PO = 2100.6 P = 1252.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4100
90.000 -.4241
180.000 -.4172
270.000 -.5545

ALPHA (2) = -.370 BETA (1) = -4.059 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3755
90.000 -.3778
180.000 -.3755
270.000 -.4761

ALPHA (2) = -.403 BETA (2) = -.044 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4033
90.000 -.4130
180.000 -.4053
270.000 -.5949

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4159)

ALPHA (2) = -.409 BETA (3) = 3.972 MACH = .89213 RN/L = 4.1756 PO = 2100.4 P = 1252.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4663
90.000 -.4591
180.000 -.4530
270.000 -.6462

ALPHA (3) = 4.076 BETA (1) = -.041 MACH = .89250 RN/L = 4.1726 PO = 2099.9 P = 1251.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4049
90.000 -.4120
180.000 -.4160
270.000 -.6223

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4160) (15 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XM RP = .0000 IN.
LREF = 1290.3000 IN. YM RP = .0000 IN.
BREF = 1290.3000 IN. ZM RP = .0000 IN.
SCALE = .0200

ELV-1B = 8.000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = -.059 MACH = 1.1000 RN/L = 4.3718 PO = 2109.8 P = 988.18

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4674
90.000 -.4912
180.000 -.4796
270.000 -.5226

ALPHA (2) = -.528 BETA (1) = -4.075 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4431
90.000 -.4622
180.000 -.4562
270.000 -.5234

ALPHA (2) = -.492 BETA (2) = -.063 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 999.81

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4606
90.000 -.4826
180.000 -.4770
270.000 -.5186

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SF3=N ORB=N) SRB SKIRT

(RE4160)

ALPHA (2) = -.532 BETA (3) = 3.956 MACH = 1.0987 RN/L = 4.3759 PO = 2110.0 P = 989.81

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5299
90.000 -.5634
180.000 -.5438
270.000 -.5695

ALPHA (3) = 4.013 BETA (1) = -.063 MACH = 1.1000 RN/L = 4.3823 PO = 2110.5 P = 988.47

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4939
90.000 -.5169
180.000 -.5091
270.000 -.5522

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4161) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.950 BETA (1) = -.066 MACH = 1.2528 RN/L = 4.3924 PO = 2109.8 P = 811.49

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2799
90.000 -.2971
180.000 -.2828
270.000 -.3206

ALPHA (2) = -.505 BETA (1) = -4.075 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2699
90.000 -.3057
180.000 -.2829
270.000 -.3072

ALPHA (2) = -.459 BETA (2) = -.059 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2982
90.000 -.3190
180.000 -.3098
270.000 -.3410

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4161)

ALPHA (2) = -.462 BETA (3) = 3.953 MACH = 1.2524 RN/L = 4.3922 PO = 2110.3 P = 812.12

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3608
90.000 -.3822
180.000 -.3710
270.000 -.3808

ALPHA (3) = 4.006 BETA (1) = -.063 MACH = 1.2481 RN/L = 4.3945 PO = 2110.5 P = 816.88

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3153
90.000 -.3436
180.000 -.3375
270.000 -.3703

DATE 23 JUL 76

TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=N ORB=N) SRB SKIRT

(RE4162) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.937 BETA (1) = -.069 MACH = 1.3993 RN/L = 4.2798 PO = 2114.0 P = 664.93

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1818
90.000 -.1205
180.000 -.1711
270.000 -.2279

ALPHA (2) = -.486 BETA (1) = -4.078 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1387
90.000 -.1506
180.000 -.1476
270.000 -.1826

ALPHA (2) = -.486 BETA (2) = -.063 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1858
90.000 -.2028
180.000 -.1965
270.000 -.2215

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TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4162)

ALPHA (2) = -.499 BETA (3) = 3.953 MACH = 1.3989 RN/L = 4.2779 PO = 2113.8 P = 665.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2395
90.000 -.2634
180.000 -.2558
270.000 -.2627

ALPHA (3) = 4.020 BETA (1) = -.066 MACH = 1.3960 RN/L = 4.2780 PO = 2114.0 P = 668.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1916
90.000 -.2210
180.000 -.2185
270.000 -.2370

DATE 23 JUL 76

TABULATED SOURCE DATA - IA80

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ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4163) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .980

ALPHA (1) = -3.868 BETA (1) = -.063 MACH = .98020 RN/L = 4.3081 PO = 2109.8 P = 1140.4

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5658
90.000 -.5763
180.000 -.5622
270.000 -.5652

ALPHA (2) = -.486 BETA (1) = -4.075 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4807
90.000 -.4911
180.000 -.4872
270.000 -.6179

ALPHA (2) = -.456 BETA (2) = -.063 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5621
90.000 -.5708
180.000 -.5638
270.000 -.6588

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=N+ ORB=N) SRB SKIRT

(RE4163)

ALPHA (2) = -.439 BETA (3) = 3.953 MACH = .97937 RN/L = 4.3059 PO = 2108.4 P = 1140.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5724
90.000 -.5910
180.000 -.5728
270.000 -.6355

ALPHA (3) = 4.013 BETA (1) = -.069 MACH = .98150 RN/L = 4.3090 PO = 2108.4 P = 1137.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5725
90.000 -.5789
180.000 -.5597
270.000 -.7085

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4164) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.973 BETA (1) = -.047 MACH = .58500 RN/L = 3.4024 PO = 2096.3 P = 1662.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3455
90.000 -.3165
180.000 -.3216
270.000 -.4317

ALPHA (2) = -.277 BETA (1) = -4.066 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3210
90.000 -.2864
180.000 -.3055
270.000 -.4129

ALPHA (2) = -.291 BETA (2) = -.047 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3445
90.000 -.2989
180.000 -.3280
270.000 -.3983

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4164)

ALPHA (2) = -.307 BETA (3) = 3.972 MACH = .58960 RN/L = 3.4202 PO = 2098.0 P = 1658.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3548
90.000 -.3122
180.000 -.3452
270.000 -.3877

ALPHA (3) = 3.957 BETA (1) = -.044 MACH = .59060 RN/L = 3.4224 PO = 2098.5 P = 1657.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3238
90.000 -.2967
180.000 -.3160
270.000 -.3786

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4165) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.977 BETA (1) = -.044 MACH = .89350 RN/L = 4.2056 PO = 2100.6 P = 1250.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3202
90.000 -.2868
180.000 -.3133
270.000 -.4211

ALPHA (2) = -.304 BETA (1) = -4.063 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2950
90.000 -.2734
180.000 -.2763
270.000 -.3918

ALPHA (2) = -.314 BETA (2) = -.044 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3012
90.000 -.2714
180.000 -.2904
270.000 -.3804

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE+165)

ALPHA (2) = - .317 BETA (3) = 3.972 MACH = .89107 RN/L = 4.1787 PO = 2099.2 P = 1253.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3344

90.000 -.3178

180.000 -.3426

270.000 -.3732

ALPHA (3) = 3.930 BETA (1) = -.041 MACH = .89120 RN/L = 4.1708 PO = 2098.5 P = 1252.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3078

90.000 -.3047

180.000 -.3082

270.000 -.3920

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4166) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = -.063 MACH = 1.0996 RN/L = 4.4015 PO = 2123.2 P = 994.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5757
90.000 -.5891
180.000 -.5838
270.000 -.5930

ALPHA (2) = -.337 BETA (1) = -4.072 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5494
90.000 -.5540
180.000 -.5453
270.000 -.5726

ALPHA (2) = -.334 BETA (2) = -.059 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5752
90.000 -.5849
180.000 -.5677
270.000 -.5866

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1374

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4166)

ALPHA (2) = -.376 BETA (3) = 3.950 MACH = 1.0995 RN/L = 4.4038 PO = 2123.7 P = 995.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5578
90.000 -.5767
180.000 -.5563
270.000 -.5733

ALPHA (3) = 3.953 BETA (1) = -.066 MACH = 1.1032 RN/L = 4.3993 PO = 2119.0 P = 988.53

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5900
90.000 -.6079
180.000 -.5979
270.000 -.6075

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1375

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4167) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -.327 BETA (1) = -4.072 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5026
90.000 -.5201
180.000 -.5171
270.000 -.5144

ALPHA (1) = -.317 BETA (2) = -.059 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5293
90.000 -.5390
180.000 -.5331
270.000 -.5282

ALPHA (1) = -.340 BETA (3) = 3.950 MACH = 1.2493 RN/L = 4.4272 PO = 2123.0 P = 820.40

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5297
90.000 -.5393
180.000 -.5183
270.000 -.5223

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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4167)

ALPHA (2) = .000 BETA (1) = -.063 MACH = 1.2510 RN/L = 4.4292 PO = 2123.9 P = 818.86

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
 .000 -.5269
 90.000 -.5342
 180.000 -.5228
 270.000 -.5246

ALPHA (3) = 3.960 BETA (1) = -.066 MACH = 1.2490 RN/L = 4.4220 PO = 2123.2 P = 820.75

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
 .000 -.5532
 90.000 -.5638
 180.000 -.5616
 270.000 -.5528

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4168) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.944 BETA (1) = -.059 MACH = 1.4046 RN/L = 4.3918 PO = 2123.2 P = 662.88

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4325
90.000 -.4426
180.000 -.4342
270.000 -.4437

ALPHA (2) = -.320 BETA (1) = -4.072 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3998
90.000 -.4173
180.000 -.4143
270.000 -.4354

ALPHA (2) = -.320 BETA (2) = -.059 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4397
90.000 -.4484
180.000 -.4510
270.000 -.4461

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4168)

ALPHA (2) = -.347 BETA (3) = 3.953 MACH = 1.4079 RN/L = 4.3701 PO = 2122.5 P = 659.58

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4512
90.000 -.4604
180.000 -.4520
270.000 -.4532

ALPHA (3) = 3.960 BETA (1) = -.063 MACH = 1.4068 RN/L = 4.3541 PO = 2121.8 P = 660.41

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4636
90.000 -.4717
180.000 -.4730
270.000 -.4696

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4169) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.920 BETA (1) = -.044 MACH = .59500 RN/L = 3.4551 PO = 2109.8 P = 1660.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4249
90.000 -.4271
180.000 -.4146
270.000 -.6856

ALPHA (2) = -.376 BETA (1) = -4.066 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4121
90.000 -.3881
180.000 -.3822
270.000 -.6287

ALPHA (2) = -.373 BETA (2) = -.050 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4241
90.000 -.4199
180.000 -.4151
270.000 -.6673

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1380

ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4169)

ALPHA (2) = -.426 BETA (3) = 3.969 MACH = .59743 RN/L = 3.4632 PO = 2109.3 P = 1657.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4244
90.000 -.4460
180.000 -.4379
270.000 -.6678

ALPHA (3) = 3.947 BETA (1) = -.044 MACH = .59880 RN/L = 3.4697 PO = 2109.8 P = 1655.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3939
90.000 -.4045
180.000 -.4062
270.000 -.6431

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4170) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 8.000 ELV-OB = -4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.897 BETA (1) = -.041 MACH = .89150 RN/L = 4.1731 PO = 2102.0 P = 1254.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4125
90.000 -.4286
180.000 -.4220
270.000 -.5444

ALPHA (2) = -.383 BETA (1) = -4.063 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3711
90.000 -.3666
180.000 -.3696
270.000 -.4613

ALPHA (2) = -.357 BETA (2) = -.047 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3954
90.000 -.4045
180.000 -.3991
270.000 -.5905

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4170)

ALPHA (2) = -.370 BETA (3) = 3.972 MACH = .89050 RN/L = 4.1731 PO = 2101.3 P = 1255.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4730
90.000 -.4675
180.000 -.4644
270.000 -.6620

ALPHA (3) = 4.020 BETA (1) = -.041 MACH = .89260 RN/L = 4.1823 PO = 2101.3 P = 1252.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4050
90.000 -.4130
180.000 -.4173
270.000 -.6245

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4171) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = -.066 MACH = 1.0977 RN/L = 4.3743 PO = 2107.0 P = 989.57

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5060
90.000 -.5281
180.000 -.5117
270.000 -.5725

ALPHA (2) = -.545 BETA (1) = -4.072 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5339
90.000 -.5607
180.000 -.5542
270.000 -.6422

ALPHA (2) = -.667 BETA (2) = -.059 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5587
90.000 -.5941
180.000 -.5789
270.000 -.6261

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE4171)

ALPHA (2) = -.519 BETA (3) = 3.953 MACH = 1.1017 RN/L = 4.3738 PO = 2107.7 P = 985.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5919
90.000 -.6344
180.000 -.6081
270.000 -.6409

ALPHA (3) = 3.990 BETA (1) = -.066 MACH = 1.1080 RN/L = 4.3708 PO = 2107.0 P = 977.00

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.6130
90.000 -.6410
180.000 -.6289
270.000 -.6891

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4172) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = -4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -4.003 BETA (1) = -.066 MACH = 1.2534 RN/L = 4.4018 PO = 2110.5 P = 811.05

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2819
90.000 -.3001
180.000 -.2830
270.000 -.3180

ALPHA (2) = -.502 BETA (1) = -4.072 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2632
90.000 -.3012
180.000 -.2798
270.000 -.3009

ALPHA (2) = -.528 BETA (2) = -.059 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2904
90.000 -.3137
180.000 -.3033
270.000 -.3330

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4172)

ALPHA (2) = -.538 BETA (3) = 3.953 MACH = 1.2515 RN/L = 4.3996 PO = 2110.5 P = 813.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3599
90.000 -.3828
180.000 -.3719
270.000 -.3814

ALPHA (3) = 3.953 BETA (1) = -.063 MACH = 1.2505 RN/L = 4.4051 PO = 2110.5 P = 814.22

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3057
90.000 -.3377
180.000 -.3299
270.000 -.3619

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4173) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = -4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -.522 BETA (1) = -4.072 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1316
90.000 -.1474
180.000 -.1441
270.000 -.1789

ALPHA (1) = -.502 BETA (2) = -.059 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 F = 656.17

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1772
90.000 -.1928
180.000 -.1867
270.000 -.2122

ALPHA (1) = -.535 BETA (3) = 3.953 MACH = 1.4084 RN/L = 4.3191 PO = 2112.8 P = 656.17

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2272
90.000 -.2501
180.000 -.2474
270.000 -.2548

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4173)

ALPHA (2) = .000 BETA (1) = -.063 MACH = 1.4118 RN/L = 4.3069 PC = 2111.9 P = 652.69

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1751
90.000 -.1933
180.000 -.1894
270.000 -.2113

ALPHA (3) = .020 BETA (1) = -.063 MACH = 1.4046 RN/L = 4.3270 PO = 2113.3 P = 659.80

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1811
90.000 -.1983
180.000 -.1991
270.000 -.2168

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORS=OFF)

SP3 SKIRT

(RE4174) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.950 BETA (1) = -.009 MACH = .60200 RN/L = 3.5046 PO = 2121.1 P = 1660.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3500
90.000 -.3132
180.000 -.3334
270.000 -.4323

ALPHA (2) = -.301 BETA (1) = -4.044 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3320
90.000 -.2868
180.000 -.3047
270.000 -.4117

ALPHA (2) = -.287 BETA (2) = -.006 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3319
90.000 -.2957
180.000 -.3187
270.000 -.3925

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1390

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4174)

ALPHA (2) = -.317 BETA (3) = 3.988 MACH = .60423 RN/L = 3.5076 PO = 2121.3 P = 1657.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3589
90.000 -.3159
180.000 -.3435
270.000 -.3788

ALPHA (3) = 3.947 BETA (1) = -.009 MACH = .60510 RN/L = 3.5081 PO = 2121.8 P = 1656.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3245
90.000 -.3041
180.000 -.3228
270.000 -.3968

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

PAGE 1391

ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRE SKIRT

(RE4175) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 900
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.012 MACH = .90260 RN/L = 4.2512 PO = 2122.5 P = 1251.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3290
90.000 -.2909
180.000 -.3161
270.000 -.4286

ALPHA (2) = -.324 BETA (1) = -4.047 MACH = .90460 RN/L = 4.2477 PO = 2121.5 P = 1246.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2942
90.000 -.2760
180.000 -.2779
270.000 -.3834

ALPHA (2) = -.317 BETA (2) = -.006 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1246.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2973
90.000 -.2702
180.000 -.2681
270.000 -.3875

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4175)

ALPHA (2) = -.396 BETA (3) = 3.984 MACH = .90460 RN/L = 4.2477 PO = 2121.6 P = 1248.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3382

90.000 -.3170

180.000 -.3432

270.000 -.3774

ALPHA (3) = 4.076 BETA (1) = -.012 MACH = .90480 RN/L = 4.2388 PO = 2121.1 P = 1247.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3020

90.000 -.2968

180.000 -.3067

270.000 -.3828

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80
ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

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(RE4176) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.934 BETA (1) = .009 MACH = 1.1011 RN/L = 4.4175 PO = 2123.9 P = 993.44

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .5769
90.000 -.5852
180.000 -.5816
270.000 -.5877

ALPHA (2) = -.238 BETA (1) = -3.994 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5398
90.000 -.5454
180.000 -.5362
270.000 -.5625

ALPHA (2) = -.307 BETA (2) = .009 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5507
90.000 -.5652
180.000 -.5501
270.000 -.5657

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4176)

ALPHA (2) = -.271 BETA (3) = 4.034 MACH = 1.1063 RN/L = 4.4170 PO = 2123.4 P = 986.84

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5488
90.000 -.5651
180.000 -.5466
270.000 -.5606

ALPHA (3) = 4.026 BETA (1) = .012 MACH = 1.1056 RN/L = 4.4135 PO = 2121.8 P = 986.83

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5626
90.000 -.5823
180.000 -.5759
270.000 -.5849

DATE 23 JUL 76

TABULATED SOURCE DATA - IABO

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ARC11-0231ABO OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4177) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.881 BETA (1) = .012 MACH = 1.2507 RN/L = 4.4817 PO = 2123.2 P = 818.92

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5152
90.000 -.5281
180.000 -.5048
270.000 -.5209

ALPHA (2) = -.238 BETA (1) = -3.994 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4900
90.000 -.5088
180.000 -.5059
270.000 -.5040

ALPHA (2) = -.258 BETA (2) = .009 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5197
90.000 -.5309
180.000 -.5257
270.000 -.5211

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4177)

ALPHA (2) = -.281 BETA (3) = 4.031 MACH = 1.2534 RN/L = 4.4652 PO = 2123.9 P = 816.27

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5205
90.000 -.5307
180.000 -.5105
270.000 -.5138

ALPHA (3) = 3.953 BETA (1) = .016 MACH = 1.2486 RN/L = 4.4578 PO = 2122.5 P = 820.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5419
90.000 -.5538
180.000 -.5513
270.000 -.5419

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4178) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = .030
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.980 BETA (1) = -.066 MACH = 1.4100 RN/L = 4.3522 PO = 2122.3 P = 657.63

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4324
90.000 -.4419
180.000 -.4315
270.000 -.4441

ALPHA (2) = -.238 BETA (1) = -4.072 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4001
90.000 -.4185
180.000 -.4151
270.000 -.4355

ALPHA (2) = -.228 BETA (2) = -.063 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4395
90.000 -.4489
180.000 -.4496
270.000 -.4432

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4178)

ALPHA (2) = -.261 BETA (3) = 3.953 MACH = 1.4075 RN/L = 4.3434 PO = 2123.2 P = 660.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4530
90.000 -.4625
180.000 -.4524
270.000 -.4539

ALPHA (3) = 3.920 BETA (1) = -.066 MACH = 1.4043 RN/L = 4.3377 PO = 2123.2 P = 663.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4629
90.000 -.4716
180.000 -.4707
270.000 -.4703

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4179) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.105 BETA (1) = -.006 MACH = .59090 RN/L = 3.4170 PO = 2104.1 P = 1651.4

SECTION (1) SP3 INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4159
90.000 -.4261
180.000 -.4116
270.000 -.6959

ALPHA (2) = -.383 BETA (1) = -4.047 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4121
90.000 -.3869
180.000 -.3845
270.000 -.6329

ALPHA (2) = -.380 BETA (2) = -.009 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4108
90.000 -.4197
180.000 -.4177
270.000 -.6758

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4179)

ALPHA (2) = -.499 BETA (3) = 3.981 MACH = .59743 RN/L = 3.4453 PO = 2104.1 P = 1653.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4207

90.000 -.4413

180.000 -.4317

270.000 -.6762

ALPHA (3) = 3.960 BETA (1) = -.012 MACH = .59700 RN/L = 3.4428 PO = 2104.1 P = 1653.6

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4006

90.000 -.4102

180.000 -.4096

270.000 -.6515

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4180) (13 JAN 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LPEF = 1290.3000 IN. YMRP = .0000 IN.
SPEF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.897 BETA (1) = -.009 MACH = .89640 RN/L = 4.1815 PO = 2097.1 P = 1244.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4203
90.000 -.4329
180.000 -.4231
270.000 -.5525

ALPHA (2) = -.353 BETA (1) = -4.050 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3706
90.000 -.3714
180.000 -.3598
270.000 -.4527

ALPHA (2) = -.363 BETA (2) = -.009 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4044
90.000 -.4124
180.000 -.4077
270.000 -.6013

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4180)

ALPHA (2) = -.519 BETA (3) = 3.981 MACH = .90047 RN/L = 4.1929 PO = 2097.3 P = 1239.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4572
90.000 -.4604
180.000 -.4578
270.000 -.6405

ALPHA (3) = 3.980 BETA (1) = -.012 MACH = .89790 RN/L = 4.1840 PO = 2097.8 P = 1243.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3978
90.000 -.4081
180.000 -.4128
270.000 -.6084

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4181) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.937 BETA (1) = .012 MACH = 1.0996 RN/L = 4.3760 PO = 2105.5 P = 986.57

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4594
90.000 -.4838
180.000 -.4697
270.000 -.5154

ALPHA (2) = -.396 BETA (1) = -3.994 MACH = 1.1021 RN/L = 4.3810 PO = 2105.0 P = 983.89

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4345
90.000 -.4554
180.000 -.4485
270.000 -.5148

ALPHA (2) = -.380 BETA (2) = .009 MACH = 1.1021 RN/L = 4.3810 PO = 2105.0 P = 983.89

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4494
90.000 -.4745
180.000 -.4520
270.000 -.5032

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4181)

ALPHA (2) = -.393 BETA (3) = 4.031 MACH = 1.1021 RN/L = 4.3810 PO = 2106.0 P = 983.89

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5182
90.000 -.5547
180.000 -.5342
270.000 -.5597

ALPHA (3) = 3.894 BETA (1) = .012 MACH = 1.1031 RN/L = 4.3843 PO = 2106.2 P = 982.65

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4831
90.000 -.5076
180.000 -.4981
270.000 -.5417

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4182) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.967 BETA (1) = .016 MACH = 1.2439 RN/L = 4.4220 PO = 2109.1 P = 820.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/L3 .9500

PHI
.000 -.2916
90.000 -.3079
180.000 -.2943
270.000 -.3295

ALPHA (2) = -.396 BETA (1) = -3.994 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2586
90.000 -.2951
180.000 -.2730
270.000 -.2963

ALPHA (2) = -.396 BETA (2) = .009 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2865
90.000 -.3083
180.000 -.2978
270.000 -.3320

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4182)

ALPHA (2) = -.380 BETA (3) = 4.031 MACH = 1.2511 RN/L = 4.4175 PO = 2109.6 P = 813.25

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3512
90.000 -.3751
180.000 -.3625
270.000 -.3739

ALPHA (3) = 3.877 BETA (1) = .009 MACH = 1.2502 RN/L = 4.4099 PO = 2109.1 P = 813.99

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3055
90.000 -.3339
180.000 -.3273
270.000 -.3596

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4183) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.983 BETA (1) = -.066 MACH = 1.4086 RN/L = 4.3187 PO = 2118.3 P = 657.57

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1706
90.000 -.1790
180.000 -.1595
270.000 -.2211

ALPHA (2) = -.380 BETA (1) = -.4059 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1385
90.000 -.1512
180.000 -.1490
270.000 -.1844

ALPHA (2) = -.380 BETA (2) = -.059 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1784
90.000 -.1924
180.000 -.1859
270.000 -.2117

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4183)

ALPHA (2) = -.409 BETA (3) = 3.953 MACH = 1.4054 RN/L = 4.3138 PO = 2117.4 P = 660.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2281
90.000 -.2507
180.000 -.2457
270.000 -.2519

ALPHA (3) = 3.828 BETA (1) = .000 MACH = 1.4102 RN/L = 4.2670 PO = 2116.9 P = 655.67

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1739
90.000 -.2035
180.000 -.1998
270.000 -.2204

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4164) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.953 BETA (1) = -.044 MACH = .59570 RN/L = 3.4174 PO = 2114.7 P = 1663.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3869
90.000 -.3495
180.000 -.3694
270.000 -.4866

ALPHA (2) = -.284 BETA (1) = -4.063 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3286
90.000 -.2949
180.000 -.3145
270.000 -.4205

ALPHA (2) = -.291 BETA (2) = -.047 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3297
90.000 -.2913
180.000 -.3131
270.000 -.3760

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4184)

ALPHA (2) = -.320 BETA (3) = 3.969 MACH = .59877 RN/L = 3.4302 PO = 2114.0 P = 1659.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3627
90.000 -.3278
180.000 -.3552
270.000 -.3956

ALPHA (3) = 3.973 BETA (1) = -.044 MACH = .59840 RN/L = 3.4294 PO = 2112.6 P = 1658.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3264
90.000 -.3015
180.000 -.3162
270.000 -.3966

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4185) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-OB = 2.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.937 BETA (1) = -.050 MACH = .90250 RN/L = 4.2680 PO = 2118.3 P = 1249.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3241
90.000 -.2946
180.000 -.3132
270.000 -.4280

ALPHA (2) = -.301 BETA (1) = -.066 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2984
90.000 -.2740
180.000 -.2758
270.000 -.3834

ALPHA (2) = -.304 BETA (2) = -.047 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3127
90.000 -.2877
180.000 -.3088
270.000 -.3962

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DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4185)

ALPHA (2) = -.320 BETA (3) = 3.969 MACH = .89937 RN/L = 4.2393 PO = 2116.4 P = 1252.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3364
90.000 -.3150
180.000 -.3467
270.000 -.3769

ALPHA (3) = 3.977 BETA (1) = -.044 MACH = .89910 RN/L = 4.2250 PO = 2114.7 P = 1251.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3026
90.000 -.2947
180.000 -.3088
270.000 -.3776

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4186) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.013 BETA (1) = .016 MACH = 1.1058 RN/L = 4.4715 PO = 2118.3 P = 985.01

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5726
90.000 -.5789
180.000 -.5758
270.000 -.5833

ALPHA (2) = -.304 BETA (1) = -3.991 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5373
90.000 -.5461
180.000 -.5368
270.000 -.5600

ALPHA (2) = -.267 BETA (2) = .009 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5679
90.000 -.5797
180.000 -.5637
270.000 -.5786

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4186)

ALPHA (2) = - .327 BETA (3) = 4.034 MACH = 1.1047 RN/L = 4.4560 PO = 2115.9 P = 985.23

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5478
90.000 -.5618
180.000 -.5449
270.000 -.5583

ALPHA (3) = 3.985 BETA (1) = .016 MACH = 1.1038 RN/L = 4.4466 PO = 2116.2 P = 986.43

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5660
90.000 -.5876
180.000 -.5793
270.000 -.5882

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4187) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 8.000 ELV-0B = 2.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.871 BETA (1) = -.044 MACH = .59840 RN/L = 3.4324 PO = 2111.9 P = 1657.8

SECTION (1) SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4172
90.000 -.4271
180.000 -.4100
270.000 -.6870

ALPHA (2) = -.350 BETA (1) = -4.066 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4006
90.000 -.3827
180.000 -.3766
270.000 -.6339

ALPHA (2) = -.380 BETA (2) = -.050 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) SPB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4116
90.000 -.4165
180.000 -.4104
270.000 -.6695

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4187)

ALPHA (2) = -.423 BETA (3) = 3.969 MACH = .59830 RN/L = 3.4341 PO = 2111.9 P = 1657.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4151
90.000 -.4357
180.000 -.4185
270.000 -.6673

ALPHA (3) = 3.986 BETA (1) = -.047 MACH = .59740 RN/L = 3.4327 PO = 2111.2 P = 1658.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3935
90.000 -.4010
180.000 -.4048
270.000 -.6543

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4188) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 2.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.953 BETA (1) = -.044 MACH = .89500 RN/L = 4.1900 PO = 2107.0 P = 1252.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4153
90.000 -.4277
180.000 -.4230
270.000 -.5437

ALPHA (2) = -.383 BETA (1) = -4.066 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3716
90.000 -.3745
180.000 -.3716
270.000 -.4613

ALPHA (2) = -.375 BETA (2) = -.047 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4018
90.000 -.4083
180.000 -.3955
270.000 -.5847

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4186)

ALPHA (2) = -.409 BETA (3) = 3.969 MACH = .89813 RN/L = 4.1944 PO = 2106.2 P = 1247.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4503
90.000 -.4458
180.000 -.4404
270.000 -.6299

ALPHA (3) = 3.940 BETA (1) = -.044 MACH = .89700 RN/L = 4.1933 PO = 2107.0 P = 1249.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4125
90.000 -.4174
180.000 -.4225
270.000 -.6272

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4169) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP =
LREF = 1290.3000 IN. YMRP =
BREF = 1290.3000 IN. ZMRP =
SCALE = .0270

.0000 IN.
.0000 IN.
.0000 IN.

PARAMETRIC DATA

ELV-18 = 8.000 ELV-08 = 2.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.970 BETA (1) =

.016 MACH = 1.1009

RN/L = 4.4134

PO

= 2105.5

P

= 985.03

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4676
90.000 -.4914
180.000 -.4837
270.000 -.5216

ALPHA (2) = -.436 BETA (1) = -3.994

MACH = 1.1059

RN/L = 4.4313

PO

= 2113.1

P

= 982.43

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4405
90.000 -.4568
180.000 -.4503
270.000 -.5140

ALPHA (2) = -.429 BETA (2) =

.009 MACH = 1.1059

RN/L = 4.4313

PO

= 2113.1

P

= 982.43

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4515
90.000 -.4739
180.000 -.4611
270.000 -.5088

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ARC11-0231A80 OTS(SRB=N ORB=N SRB SKIRT

(RE:189)

ALPHA (2) = -.466 BETA (3) = 4.031 MACH = 1.1059 RN/L = 4.4313 PO = 2113.1 P = 982.43

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE C'

XB/LB .9500

PHI
.000 -.5120
90.000 -.5442
180.000 -.5266
270.000 -.5507

ALPHA (3) = 3.851 BETA (1) = .012 MACH = 1.1043 RN/L = 4.4260 PO = 2112.6 P = 984.21

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4856
90.000 -.5103
180.000 -.4976
270.000 -.5429

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4190) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.960 BETA (1) = -.003 MACH = .59840 RN/L = 3.4955 PO = 2121.1 P = 1665.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3546
90.000 -.3209
180.000 -.3393
270.000 -.4477

ALPHA (2) = -.267 BETA (1) = -4.003 MACH = .59007 RN/L = 3.4936 PO = 2121.1 P = 1664.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3287
90.000 -.2981
180.000 -.3093
270.000 -.4234

ALPHA (2) = -.291 BETA (2) = .012 MACH = .59907 RN/L = 3.4936 PO = 2121.1 P = 1664.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3384
90.000 -.3031
180.000 -.3285
270.000 -.3797

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE4190)

ALPHA (2) = -.294 BETA (3) = 4.028 MACH = .59907 RN/L = 3.493E PO = 2121.1 P = 1664.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3590
90.000 -.3150
180.000 -.3453
270.000 -.3791

ALPHA (3) = 3.973 BETA (1) = .006 MACH = .59860 RN/L = 3.4896 PO = 2121.1 P = 1664.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3299
90.000 -.3051
180.000 -.3194
270.000 -.3884

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4191) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-OB = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.980 BETA (1) = -.003 MACH = .90430 RN/L = 4.2125 PO = 2104.8 P = 1239.7

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3229
90.000 -.2833
180.000 -.3126
270.000 -.4214

ALPHA (2) = -.267 BETA (1) = -4.003 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2952
90.000 -.2741
180.000 -.2807
270.000 -.3839

ALPHA (2) = -.291 BETA (2) = .012 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3171
90.000 -.2857
180.000 -.3057
270.000 -.4007

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE4191)

ALPHA (2) = -.284 BETA (3) = 4.028 MACH = .90037 RN/L = 4.1975 PO = 2104.1 P = 1243.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3343
90.000 -.3099
180.000 -.3370
270.000 -.3745

ALPHA (3) = 3.970 BETA (1) = -.003 MACH = .90050 RN/L = 4.1955 PO = 2102.7 P = 1242.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3010
90.000 -.2990
180.000 -.3093
270.000 -.3844

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4192) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.957 BETA (1) = .003 MACH = 1.0578 RN/L = 4.3356 PO = 2110.5 P = 991.11

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB 9500

PHI
.000 -.5878
90.000 -.5956
180.000 -.5937
270.000 -.6011

ALPHA (2) = -.264 BETA (1) = -3.994 MACH = 1.0997

RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5468
90.000 -.5540
180.000 -.5463
270.000 -.5709

ALPHA (2) = -.281 BETA (2) = .000 MACH = 1.0997

RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5640
90.000 -.5764
180.000 -.5620
270.000 -.5786

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE4192)

ALPHA (2) = -.320 BETA (3) = 4.028 MACH = 1.0997 RN/L = 4.3377 PO = 2110.5 P = 988.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5675
90.000 -.5837
180.000 -.5636
270.000 -.5798

ALPHA (3) = 3.977 BETA (1) = .003 MACH = 1.0998 RN/L = 4.3390 PO = 2109.8 P = 988.41

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5728
90.000 -.5957
180.000 -.5881
270.000 -.5959

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4193) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
RREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.953 BETA (1) = .006 MACH = 1.2528 RN/L = 4.3463 PO = 2110.5 P = 811.76

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5188
90.000 -.5349
180.000 -.5111
270.000 -.5262

ALPHA (2) = -.238 BETA (1) = -3.997 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4976
90.000 -.5198
180.000 -.5153
270.000 -.5098

ALPHA (2) = -.231 BETA (2) = .000 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5268
90.000 -.5391
180.000 -.5345
270.000 -.5311

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4193)

ALPHA (2) = -.284 BETA (3) = 4.034 MACH = 1.2535 RN/L = 4.3462 PO = 2111.4 P = 811.30

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5323
90.000 -.5435
180.000 -.5208
270.000 -.5240

ALPHA (3) = 3.977 BETA (1) = .000 MACH = 1.2524 RN/L = 4.3409 PO = 2110.5 P = 812.19

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5464
90.000 -.5598
180.000 -.5572
270.000 -.5477

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ARC11-0231A80 01S(SRB=OFF ORB=OFF)

SRB SKIRT

(RE4194) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.867 BETA (1) = .016 MACH = 1.4070 RN/L = 4.3762 PO = 2135.2 P = 664.38

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4311
90.000 -.4413
180.000 -.4299
270.000 .4427

ALPHA (2) = -.271 BETA (1) = -3.991 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3923
90.000 -.4158
180.000 -.4120
270.000 -.4293

ALPHA (2) = -.251 BETA (2) = .009 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4360
90.000 -.4450
180.000 -.4467
270.000 -.4374

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE4184)

ALPHA (2) = -.284 BETA (3) = 4.031 MACH = 1.4086 RN/L = 4.3552 PO = 2132.6 P = 662.12

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4552
90.000 -.4627
180.000 -.4525
270.000 -.4528

ALPHA (3) = 3.973 BETA (1) = .006 MACH = 1.3982 RN/L = 4.3323 PO = 2123.9 P = 669.12

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4622
90.000 -.4732
180.000 -.4740
270.000 -.4718

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4195) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
EREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 4.000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.960 BETA (1) = .006 MACH = .58310 RN/L = 3.4103 PO = 2111.9 P = 1677.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4449
90.000 -.4477
180.000 -.4438
270.000 -.7175

ALPHA (2) = -.297 BETA (1) = -4.003 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4149
90.000 -.3992
180.000 -.3920
270.000 -.6448

ALPHA (2) = -.307 BETA (2) = .012 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3998
90.000 -.4057
180.000 -.4019
270.000 -.6482

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE-193)

ALPHA (2) = -.376 BETA (3) = 4.022 MACH = .59743 RN/L = 3.4671 PO = 2111.9 P = 1659.1

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4349
90.000 -.4574
180.000 -.4526
270.000 -.6922

ALPHA (3) = 4.020 BETA (1) = -.003 MACH = .60100 RN/L = 3.4818 PO = 2111.9 P = 1654.5

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3914
90.000 -.4007
180.000 -.3977
270.000 -.6290

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4196) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.891 BETA (1) = -.003 MACH = .90360 RN/L = 4.2068 PO = 2106.2 P = 1240.9

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4171
90.000 -.4319
180.000 -.4273
270.000 -.5373

ALPHA (2) = -.390 BETA (1) = -4.003 MACH = .89957 RN/L = 4.1991 PO = 2105.5 P = 1245.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3839
90.000 -.3845
180.000 -.3788
270.000 -.4651

ALPHA (2) = -.360 BETA (2) = .012 MACH = .89957 RN/L = 4.1991 PO = 2105.5 P = 1245.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4058
90.000 -.4225
180.000 -.4169
270.000 -.5995

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4196)

ALPHA (2) = -.406 BETA (3) = 4.031 MACH = .89957 RN/L = 4.1991 PO = 2105.5 P = 1245.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4594
90.000 -.4594
180.000 -.4443
270.000 -.6206

ALPHA (3) = 3.986 BETA (1) = -.003 MACH = .90050 RN/L = 4.1971 PO = 2105.5 P = 1244.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4057
90.000 -.4141
180.000 -.4192
270.000 -.6235

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4197) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = 4.000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.963 BETA (1) = .003 MACH = 1.0995 RN/L = 4.3360 PO = 2105.5 P = 986.72

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4629
90.000 -.4852
180.000 -.4742
270.000 -.5194

ALPHA (2) = -.409 BETA (1) = -3.997 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4455
90.000 -.4620
180.000 -.4564
270.000 -.5280

ALPHA (2) = -.386 BETA (2) = -.003 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4576
90.000 -.4827
180.000 -.4756
270.000 -.5168

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE4197)

ALPHA (2) = -.429 BETA (3) = 4.028 MACH = 1.0997 RN/L = 4.3375 PO = 2105.5 P = 986.54

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5177
90.000 -.5526
180.000 -.5330
270.000 -.5603

ALPHA (3) = 4.033 BETA (1) = -.003 MACH = 1.0997 RN/L = 4.3440 PO = 2106.2 P = 986.87

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4920
90.000 -.5154
180.000 -.5082
270.000 -.5505

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE4198) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = 4.000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.973 BETA (1) = .003 MACH = 1.2526 RN/L = 4.3420 PO = 2108.4 P = 811.19

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2773
90.000 -.2933
180.000 -.2805
270.000 -.3218

ALPHA (2) = -.482 BETA (1) = -3.994 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2680
90.000 -.2936
180.000 -.2744
270.000 -.2999

ALPHA (2) = -.439 BETA (2) = -.003 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2690
90.000 -.3057
180.000 -.2991
270.000 -.3349

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4198)

ALPHA (2) = -.416 BETA (3) = 4.028 MACH = 1.2535 RN/L = 4.3392 PO = 2107.9 P = 809.98

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3492
90.000 -.3726
180.000 -.3616
270.000 -.3724

ALPHA (3) = 4.020 BETA (1) = .003 MACH = 1.2508 RN/L = 4.3353 PO = 2107.7 P = 812.82

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3017
90.000 -.3289
180.000 -.3210
270.000 -.3571

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE4199) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = 4.000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.944 BETA (1) = .009 MACH = 1.4093 RN/L = 4.2699 PO = 2108.4 P = 653.90

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1701
90.000 -.1782
180.000 -.1588
270.000 -.2234

ALPHA (2) = -.403 BETA (1) = -3.991 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.36

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1361
90.000 -.1460
180.000 -.1414
270.000 -.1792

ALPHA (2) = -.386 BETA (2) = .012 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.36

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1747
90.000 -.1941
180.000 -.1850
270.000 -.2151

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIPT

(RE4199)

ALPHA (2) = -.443 BETA (3) = 4.034 MACH = 1.4102 RN/L = 4.2615 PO = 2109.3 P = 653.36

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2266
90.000 -.2522
180.000 -.2455
270.000 -.2515

ALPHA (3) = 3.864 BETA (1) = .012 MACH = 1.4084 RN/L = 4.2570 PO = 2109.1 P = 654.92

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1766
90.000 -.2079
180.000 -.2039
270.000 -.2244

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A0) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.894 BETA (1) = .000 MACH = .60180 RN/L = 3.5043 PO = 2121.1 P = 1660.6

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3497
90.000 -.3105
180.000 -.3318
270.000 -.4210

ALPHA (2) = -.281 BETA (1) = -4.003 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3247
90.000 -.2984
180.000 -.3117
270.000 -.4189

ALPHA (2) = -.287 BETA (2) = .012 MACH = .59723 RN/L = 3.4829 PO = 2122.3 P = 1667.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3444
90.000 -.3001
180.000 -.3267
270.000 -.3914

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ARC11-0231A80 OTS(SRB-OFF ORB-OFF)

SRB SKIRT

(RE41A0)

ALPHA (2) = -.301 BETA (3) = 4.028 MACH = .59723 RN/L = 3.4223 PO = 2122.3 P = 1667.4

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3716
90.000 -.3296
180.000 -.3586
270.000 -.3921

ALPHA (3) = 3.985 BETA (1) = .012 MACH = .59790 RN/L = 3.4847 PO = 2122.5 P = 1666.8

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3359
90.000 -.3168
180.000 -.3274
270.000 -.4006

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.996 BETA (1) = .009 MACH = .89940 RN/L = 4.2300 PO = 2121.8 P = 1255.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3226
90.000 -.2866
180.000 -.3102
270.000 -.4193

ALPHA (2) = -.281 BETA (1) = -4.006 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2955
90.000 -.2721
180.000 -.2791
270.000 -.3789

ALPHA (2) = -.284 BETA (2) = .009 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3092
90.000 -.2782
180.000 -.2975
270.000 -.3870

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A1)

ALPHA (2) = -.281 BETA (3) = 4.028 MACH = .90087 RN/L = 4.2382 PO = 2122.0 P = 1253.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3377
90.000 -.3104
180.000 -.3481
270.000 -.3824

ALPHA (3) = 4.023 BETA (1) = .016 MACH = .90100 RN/L = 4.2328 PO = 2121.8 P = 1253.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3065
90.000 -.3035
180.000 -.3067
270.000 -.3889

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(REV1A2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.967 BETA (1) = .006 MACH = 1.0986 RN/L = 4.3563 PO = 2114.0 P = 991.79

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5814
90.000 -.5923
180.000 -.5991
270.000 -.5960

ALPHA (2) = -.284 BETA (1) = -4.003 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5446
90.000 -.5487
180.000 -.5423
270.000 -.5582

ALPHA (2) = -.258 BETA (2) = -.012 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5589
90.000 -.5694
180.000 -.5553
270.000 -.5729

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A2)

ALPHA (2) = -.301 BETA (3) = 4.015 MACH = 1.1004 RN/L = 4.3594 PO = 2113.8 P = 989.54

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5664
90.000 -.5845
180.000 -.5651
270.000 -.5785

ALPHA (3) = 3.947 BETA (1) = .000 MACH = 1.1030 RN/L = 4.3633 PO = 2114.0 P = 986.41

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5630
90.000 -.5844
180.000 -.5752
270.000 -.5667

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF) SRB SKIRT

(RE41A3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.947 BETA (1) = -.006 MACH = 1.2545 RN/L = 4.3671 PO = 2114.0 P = 811.27

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5172
90.000 -.5335
180.000 -.5089
270.000 -.5239

ALPHA (2) = -.248 BETA (1) = -4.000 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4933
90.000 -.5180
180.000 -.5119
270.000 -.5041

ALPHA (2) = -.244 BETA (2) = -.005 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5275
90.000 -.5404
180.000 -.5349
270.000 -.5310

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A3)

ALPHA (2) = -.271 BETA (3) = 4.022 MACH = 1.2545 RN/L = 4.3581 PO = 2114.0 P = 811.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5348
90.000 -.5469
180.000 -.5224
270.000 -.5259

ALPHA (3) = 3.985 BETA (1) = .003 MACH = 1.2546 RN/L = 4.3551 PO = 2114.0 P = 811.12

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5394
90.000 -.5560
180.000 -.5573
270.000 -.5447

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A4) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = .000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.947 BETA (1) = .006 MACH = 1.4033 RN/L = 4.3439 PO = 2107.0 P = 659.02

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4326
90.000 -.4429
180.000 -.4309
270.000 -.4408

ALPHA (2) = -.267 BETA (1) = -3.994 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3972
90.000 -.4224
180.000 -.4190
270.000 -.4328

ALPHA (2) = -.277 BETA (2) = -.003 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4431
90.000 -.4507
180.000 -.4524
270.000 -.4435

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=OFF ORB=OFF)

SRB SKIRT

(RE41A4)

ALPHA (2) = -.284 BETA (3) = 4.019 MACH = 1.4040 RN/L = 4.3128 PO = 2099.2 P = 655.94

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4623
90.000 -.4691
180.000 -.4590
270.000 -.4584

ALPHA (3) = 3.986 BETA (1) = .006 MACH = 1.3970 RN/L = 4.2777 PO = 2085.7 P = 658.16

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4613
90.000 -.4761
180.000 -.4765
270.000 -.4715

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE41A5) (13 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

ELV-18 = .000 ELV-OB = 4.000
RN/L = 3.400 MACH = .600

ALPHA (1) = -3.983 BETA (1) = .012 MACH = .59900 RN/L = 3.4730 PO = 2113.3 P = 1658.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4435
90.000 -.4450
180.000 -.4344
270.000 -.6954

ALPHA (2) = -.337 BETA (1) = -4.006 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4202
90.000 -.3901
180.000 -.3887
270.000 -.6326

ALPHA (2) = -.370 BETA (2) = .009 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4266
90.000 -.4279
180.000 -.4239
270.000 -.6577

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(REV1A5)

ALPHA (2) = -.453 BETA (3) = 4.025 MACH = .60037 RN/L = 3.4773 PO = 2112.8 P = 1656.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4315
90.000 -.4557
180.000 -.4428
270.000 -.6653

ALPHA (3) = 3.910 BETA (1) = .009 MACH = .60100 RN/L = 3.4798 PO = 2112.6 P = 1655.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3974
90.000 -.4045
180.000 -.4096
270.000 -.6286

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE41A6) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-C8 = 4.000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.937 BETA (1) = .016 MACH = .90250 RN/L = 4.2121 PO = 2111.9 P = 1245.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4273
90.000 -.4395
180.000 -.4317
270.000 -.5380

ALPHA (2) = -.376 BETA (1) = -4.006 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1235.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3777
90.000 -.3827
180.000 -.3815
270.000 -.4704

ALPHA (2) = -.353 BETA (2) = .009 MACH = .90930 RN/L = 4.2268 PO = 2111.9 P = 1236.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4172
90.000 -.4331
180.000 -.4215
270.000 -.6055

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE41A6)

ALPHA (2) = -.420 BETA (3) = 4.022 MACH = .90930 RN/L = 4.22E8 PO = 2111.9 P = 1236.2

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4771
90.000 -.4755
180.000 -.4555
270.000 -.6330

ALPHA (3) = 3.910 BETA (1) = .006 MACH = .91060 RN/L = 4.2296 PO = 2111.9 P = 1234.3

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4049
90.000 -.4126
180.000 -.4120
270.000 -.6122

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE41A7) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = 4.000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.996 BETA (1) = .006 MACH = 1.0997 RN/L = 4.3565 PO = 2107.7 P = 987.56

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4691
90.000 -.4906
180.000 -.4788
270.000 -.5254

ALPHA (2) = -.416 BETA (1) = -4.093 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 988.07

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4460
90.000 -.4589
180.000 -.4576
270.000 -.5278

ALPHA (2) = -.403 BETA (2) = -.012 MACH = 1.0993 RN/L = 4.3567 PO = 2107.7 P = 988.07

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4596
90.000 -.4834
180.000 -.4764
270.000 -.5169

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT (RE41A7)
ALPHA (2) = -.426 BETA (3) = 4.019 MACH = 1.0993 RN/L = 4.3557 PO = 2107.7 P = 988.07

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5183
90.000 -.5549
180.000 -.5347
270.000 -.5595

ALPHA (3) = 3.798 BETA (1) = .009 MACH = 1.0994 RN/L = 4.3619 PO = 2107.7 P = 987.85

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4895
90.000 -.5188
180.000 -.5045
270.000 -.5480

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT.

(RE41A8) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = 4.000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.986 BETA (1) = .009 MACH = 1.2550 RN/L = 4.3537 PO = 2109.1 P = 809.83

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2782
90.000 -.2345
180.000 -.2830
270.000 -.3255

ALPHA (2) = -.400 BETA (1) = -4.003 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2740
90.000 -.2917
180.000 -.2725
270.000 -.2938

ALPHA (2) = -.393 BETA (2) = -.012 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2843
90.000 -.3057
180.000 -.2982
270.000 -.3335

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB=N) SRB SKIRT

(RE41A8)

ALPHA (2) = -.413 BETA (3) = 4.022 MACH = 1.2517 RN/L = 4.3574 PO = 2109.1 P = 812.36

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3553
90.000 -.3799
180.000 -.3685
270.000 -.3794

ALPHA (3) = 3.947 BETA (1) = .003 MACH = 1.2539 RN/L = 4.3574 PO = 2109.1 P = 810.01

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2995
90.000 -.3257
180.000 -.3176
270.000 -.3516

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ARC11-0231A80 OTS(SRB=N ORB=N)

SRB SKIRT

(RE41A9) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = 4.000
RN/L = 4.200 MACH = 1.400

ALPHA (1) = -3.940 BETA (1) = .009 MACH = 1.4085 RN/L = 4.2899 PO = 2110.5 P = 655.32

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1703
90.000 -.1783
180.000 -.1613
270.000 -.2236

ALPHA (2) = -.449 BETA (1) = -3.997 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1375
90.000 -.1460
180.000 -.1436
270.000 -.1761

ALPHA (2) = -.380 BETA (2) = -.006 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1733
90.000 -.1965
180.000 -.1876
270.000 -.2153

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ARC11-0231A80 OTS:SRB=N ORB=N ; SRB SKIRT

(RE41A9)

ALPHA (2) = -.443 BETA (3) = 4.025 MACH = 1.4066 RN/L = 4.2802 PO = 2110.5 P = 657.03

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2266
90.000 -.2534
180.000 -.2460
270.000 -.2532

ALPHA (3) = 3.821 BETA (1) = .006 MACH = 1.4060 RN/L = 4.2706 PO = 2109.8 P = 657.37

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1790
90.000 -.2073
180.000 -.2019
270.000 -.2251

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE4180) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
SREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-IB = .000 ELV-OB = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.013 BETA (1) = .006 MACH = .60070 RN/L = 3.5069 PO = 2116.2 P = 1658.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4301
90.000 -.4277
180.000 -.4186
270.000 -.6778

ALPHA (2) = -.271 BETA (1) = -4.006 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4377
90.000 -.4106
180.000 -.4052
270.000 -.6519

ALPHA (2) = -.310 BETA (2) = .003 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4175
90.000 -.4098
180.000 -.4125
270.000 -.6421

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B0)

ALPHA (2) = - .310 BETA (3) = 4.025 MACH = .59863 RN/L = 3.4917 PO = 2115.4 P = 1660.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4469
90.000 -.4610
180.000 -.4589
270.000 -.6839

ALPHA (3) = 3.930 BETA (1) = .009 MACH = .59910 RN/L = 3.4923 PO = 2115.4 P = 1659.7

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4080
90.000 -.4192
180.000 -.4141
270.000 -.6329

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
SREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.069 BETA (1) = .009 MACH = .90080 RN/L = 4.2148 PO = 2109.8 P = 1246.4

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4394
90.000 -.4531
180.000 -.4428
270.000 -.5662

ALPHA (2) = -.304 BETA (1) = -4.006 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3840
90.000 -.3812
180.000 -.3819
270.000 -.4727

ALPHA (2) = -.317 BETA (2) = .003 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4172
90.000 -.4230
180.000 -.4158
270.000 -.5983

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B1)

ALPHA (2) = -.357 BETA (3) = 4.025 MACH = .90390 RN/L = 4.2180 PO = 2109.6 P = 1242.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4787
90.000 -.4883
180.000 -.4821
270.000 -.6582

ALPHA (3) = 3.986 BETA (1) = .019 MACH = .90670 RN/L = 4.2222 PO = 2109.8 P = 1238.4

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4211
90.000 -.4215
180.000 -.4269
270.000 -.6279

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE4182) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-09 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -3.973 BETA (1) = -.009 MACH = 1.0946

RN/L = 4.3814 PO = 2106.2 P = 993.13

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4773
90.000 -.5040
180.000 -.4911
270.000 -.5312

ALPHA (2) = -.393 BETA (1) = -4.006 MACH = 1.0958

RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4423
90.000 -.4601
180.000 -.4561
270.000 -.5203

ALPHA (2) = -.340 BETA (2) = -.016 MACH = 1.0958

RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1)SPB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4749
90.000 -.5058
180.000 -.4966
270.000 -.5295

DATE 23 JUL 76

TABULATED SOURCE DATA - 1480

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B2)

ALPHA (2) = -.357 BETA (3) = 4.016 MACH = 1.0958 RN/L = 4.3828 PO = 2105.7 P = 991.34

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5331
90.000 -.5703
180.000 -.5504
270.000 -.5719

ALPHA (3) = 4.026 BETA (1) = -.016 MACH = 1.1011 RN/L = 4.3891 PO = 2106.2 P = 985.19

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4861
90.000 -.5190
180.000 -.5108
270.000 -.5452

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.947 BETA (1) = -.003 MACH = 1.2463 RN/L = 4.4021 PO = 2107.0 P = 817.37

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2961
90.000 -.3178
180.000 -.3030
270.000 -.3349

ALPHA (2) = -.400 BETA (1) = -4.000 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2916
90.000 -.3147
180.000 -.2939
270.000 -.3194

ALPHA (2) = -.370 BETA (2) = -.009 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3037
90.000 -.3309
180.000 -.3207
270.000 -.3447

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B3)

ALPHA (2) = -.420 BETA (3) = 4.019 MACH = 1.2440 RN/L = 4.3992 PO = 2107.0 P = 819.92

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3704
90.000 -.3927
180.000 -.3828
270.000 -.3899

ALPHA (3) = 3.986 BETA (1) = -.012 MACH = 1.2457 RN/L = 4.4005 PO = 2107.7 P = 818.39

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.3122
90.000 -.3471
180.000 -.3385
270.000 -.3643

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE4184) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.957 BETA (1) = -.003 MACH = 1.4002 RN/L = 4.3550 PO = 2109.8 P = 662.79

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1905
90.000 -.2017
180.000 -.1823
270.000 -.2271

ALPHA (2) = -.443 BETA (1) = -4.000 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1486
90.000 -.1656
180.000 -.1637
270.000 -.1860

ALPHA (2) = -.406 BETA (2) = -.006 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1952
90.000 -.2209
180.000 -.2149
270.000 -.2297

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.2 OUT)SRB SKIRT

(RE41B4)

ALPHA (2) = -.446 BETA (3) = 4.019 MACH = 1.3986 RN/L = 4.3460 PO = 2109.6 P = 664.22

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2481
90.000 -.2694
180.000 -.2621
270.000 -.2690

ALPHA (3) = 3.953 BETA (1) = -.009 MACH = 1.3971 RN/L = 4.3340 PO = 2109.8 P = 665.69

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1960
90.000 -.2362
180.000 -.2292
270.000 -.2400

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE4185) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 3.400 MACH = .600

ALPHA (1) = -4.072 BETA (1) = .012 MACH = .58560 RN/L = 3.4206 PO = 2115.4 P = 1677.1

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4752
90.000 -.4844
180.000 -.4763
270.000 -.7354

ALPHA (2) = -.284 BETA (1) = -4.003 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4202
90.000 -.3925
180.000 -.3915
270.000 -.6272

ALPHA (2) = -.337 BETA (2) = .003 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4262
90.000 -.4272
180.000 -.4252
270.000 -.6649

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE4185)

ALPHA (2) = -.367 BETA (3) = 4.025 MACH = .60257 RN/L = 3.4870 PO = 2114.9 P = 1654.8

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4305
90.000 -.4513
180.000 -.4456
270.000 -.6642

ALPHA (3) = 3.868 BETA (1) = .006 MACH = .59730 RN/L = 3.4653 PO = 2114.7 P = 1661.5

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4117
90.000 -.4131
180.000 -.4158
270.000 -.6371

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE4186) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.013 BETA (1) = .009 MACH = .89890 RN/L = 4.2040 PO = 2109.8 P = 1249.0

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4361
90.000 -.4526
180.000 -.4387
270.000 -.5628

ALPHA (2) = -.317 BETA (1) = -4.003 MACH = .90107 RN/L = 4.2091 PO = 2108.6 P = 1245.3

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3811
90.000 -.3839
180.000 -.3837
270.000 -.4669

ALPHA (2) = -.310 BETA (2) = .003 MACH = .90107 RN/L = 4.2091 PO = 2106.6 P = 1245.3

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4206
90.000 -.4311
180.000 -.4305
270.000 -.6200

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE41B6)

ALPHA (2) = - .340 BETA (3) = 4.025 MACH = .90107 RN/L = 4.2091 PO = 2108.5 P = 1245.3

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .4690
90.000 - .4732
180.000 - .4646
270.000 - .6527

ALPHA (3) = 3.854 BETA (1) = .009 MACH = .90130 RN/L = 4.2066 PO = 2109.1 P = 1245.3

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 - .4140
90.000 - .4254
180.000 - .4266
270.000 - .6383

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE4187) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-0B = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.003 BETA (1) = -.012 MACH = 1.0992 RN/L = 4.3803 PO = 2102.7 P = 985.74

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4597
90.000 -.4811
180.000 -.4693
270.000 -.5247

ALPHA (2) = -.393 BETA (1) = -4.006 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4285
90.000 -.4430
180.000 -.4418
270.000 -.5199

ALPHA (2) = -.347 BETA (2) = -.019 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4544
90.000 -.4810
180.000 -.4686
270.000 -.5113

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE4187)

ALPHA (2) = -.383 BETA (3) = 4.012 MACH = 1.1052 RN/L = 4.3824 PO = 2102.7 P = 978.47

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4997
90.000 -.5359
180.000 -.5168
270.000 -.5406

ALPHA (3) = 4.049 BETA (1) = -.012 MACH = 1.1075 RN/L = 4.3846 PO = 2102.7 P = 975.68

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4725
90.000 -.4952
180.000 -.4848
270.000 -.5355

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE4188) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LPEF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.250

ALPHA (1) = -3.914 BETA (1) = -.009 MACH = 1.2513 RN/L = 4.3952 PO = 2104.1 P = 810.95

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2981
90.000 -.3159
180.000 -.3034
270.000 -.3467

ALPHA (2) = -.353 BETA (1) = -4.006 MACH = 1.2491

RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2998
90.000 -.3201
180.000 -.3010
270.000 -.3283

ALPHA (2) = -.367 BETA (2) = -.016 MACH = 1.2491

RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3107
90.000 -.3314
180.000 -.3222
270.000 -.3574

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE41B8)

ALPHA (2) = -.393 BETA (3) = 4.016 MACH = 1.2491 RN/L = 4.3920 PO = 2104.8 P = 813.54

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3754
90.000 -.3991
180.000 -.3874
270.000 -.3969

ALPHA (3) = 4.053 BETA (1) = -.012 MACH = 1.2485 RN/L = 4.3917 PO = 2104.1 P = 813.89

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3236
90.000 -.3553
180.000 -.3456
270.000 -.3758

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE41B9) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.400

ALPHA (1) = -3.934 BETA (1) = -.009 MACH = 1.4069 RN/L = 4.3421 PO = 2107.0 P = 655.71

SECTION (1)SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1724
90.000 -.1798
180.000 -.1622
270.000 -.2257

ALPHA (2) = -.426 BETA (1) = -4.006 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1)SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1375
90.000 -.1474
180.000 -.1458
270.000 -.1783

ALPHA (2) = -.383 BETA (2) = -.016 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1)SRB INSIDE SKIRT DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.1742
90.000 -.1988
180.000 -.1894
270.000 -.2161

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(SRB=N ORB NO.1 OUT)SRB SKIRT

(RE41B9)

ALPHA (2) = -.436 BETA (3) = 4.016 MACH = 1.4068 RN/L = 4.3356 PO = 2107.7 P = 655.95

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.2293
90.000 -.2539
180.000 -.2488
270.000 -.2564

ALPHA (3) = 4.046 BETA (1) = -.012 MACH = 1.4068 RN/L = 4.3293 PO = 2108.4 P = 656.24

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.1793
90.000 -.2072
180.000 -.2050
270.000 -.2238

DATE 23 JUL 76

TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)SRB SKIRT

(RE41C0) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -4.029 BETA (1) = .016 MACH = .89710 RN/L = 4.2461 PO = 2124.6 P = 1260.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3253
90.000 -.2854
180.000 -.3086
270.000 -.3459

ALPHA (2) = -.241 BETA (1) = -4.009 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.2720
90.000 -.2345
180.000 -.2406
270.000 -.2911

ALPHA (2) = -.264 BETA (2) = -.003 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3163
90.000 -.2726
180.000 -.3047
270.000 -.3317

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)SRB SKIRT

(RE41C0)

ALPHA (2) = -.291 BETA (3) = 4.022 MACH = .90283 RN/L = 4.2516 PO = 2122.7 P = 1251.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3330
90.000 -.3007
180.000 -.3316
270.000 -.3448

ALPHA (3) = 3.980 BETA (1) = .016 MACH = .90820 RN/L = 4.2637 PO = 2123.2 P = 1244.2

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3172
90.000 -.3021
180.000 -.3057
270.000 -.3400

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TABULATED SOURCE DATA - 1A80

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ARC11-9231A80 OTS(ET SPOIL(SRB=ORB=OFF)SRB SKIRT

(RE41C1) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-1B = .000 ELV-OB = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.000 BETA (1) = .012 MACH = 1.1039 RN/L = 4.4630 PO = 2123.2 P = 989.56

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5404
90.000 -.5509
180.000 -.5440
270.000 -.5583

ALPHA (2) = -.264 BETA (1) = -4.009 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4617
90.000 -.4568
180.000 -.4505
270.000 -.4935

ALPHA (2) = -.284 BETA (2) = .000 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.5592
90.000 -.5698
180.000 -.5536
270.000 -.5732

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=OFF)SRB SKIRT

(RE41C1)

ALPHA (2) = .297 BETA (3) = 4.022 MACH = 1.1017 RN/L = 4.4844 PO = 2124.6 P = 992.96

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5410
90.000 -.5562
180.000 -.5388
270.000 -.5499

ALPHA (3) = 3.910 BETA (1) = .016 MACH = 1.1026 RN/L = 4.4864 PO = 2123.9 P = 991.59

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5621
90.000 -.5763
180.000 -.5648
270.000 -.5732

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TABULATED SOURCE DATA - 1A80

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)SRB SKIRT

(RE41C2) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = .900

ALPHA (1) = -3.996 BETA (1) = .016 MACH = .90230 RN/L = 4.2244 PO = 2111.2 P = 1245.1

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4396
90.000 -.4498
180.000 -.4534
270.000 -.4679

ALPHA (2) = -.284 BETA (1) = -4.012 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.3954
90.000 -.4133
180.000 -.4183
270.000 -.3950

ALPHA (2) = -.360 BETA (2) = -.003 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4475
90.000 -.4562
180.000 -.4626
270.000 -.5921

ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)SRB SKIRT

(RE41C2)

ALPHA (2) = -.330 BETA (3) = 4.019 MACH = .90030 RN/L = 4.2241 PO = 2110.5 P = 1247.5

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5105
90.000 -.5250
180.000 -.5211
270.000 -.7046

ALPHA (3) = 3.927 BETA (1) = .012 MACH = .89920 RN/L = 4.2176 PO = 2110.5 P = 1249.0

SECTION (1) SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4488
90.000 -.4682
180.000 -.4692
270.000 -.6302

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TABULATED SOURCE DATA - IAG0

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB-NOM)SRB SKIRT

(RE41L3) (13 JAN 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0200

PARAMETRIC DATA

ELV-18 = .000 ELV-08 = .000
RN/L = 4.250 MACH = 1.100

ALPHA (1) = -4.033 BETA (1) = .016 MACH = 1.1036 RN/L = 4.4660 PO = 2114.0 P = 985.75

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4581
90.000 -.4777
180.000 -.4659
270.000 -.5303

ALPHA (2) = -.433 BETA (1) = -4.009 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4047
90.000 -.4121
180.000 -.4218
270.000 -.5101

ALPHA (2) = -.446 BETA (2) = -.003 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI
.000 -.4472
90.000 -.4794
180.000 -.4745
270.000 -.5155

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ARC11-0231A80 OTS(ET SPOIL(SRB=ORB=NOM)SRB SKIRT

(RE41C3)

ALPHA (2) = -.456 BETA (3) = 4.022 MACH = 1.1009 RN/L = 4.4637 PO = 2114.0 P = 989.05

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.5453
90.000 -.5692
180.000 -.5520
270.000 -.5656

ALPHA (3) = 3.844 BETA (1) = .003 MACH = 1.1023 RN/L = 4.4653 PO = 2114.7 P = 987.65

SECTION (1)SRB INSIDE SKIRT

DEPENDENT VARIABLE CP

XB/LB .9500

PHI

.000 -.4911
90.000 -.5301
180.000 -.5273
270.000 -.5546